





## FOREWORD

Sport is an important part of life for most New Zealanders. It contributes to our health and wellbeing, economy and national identity. Kiwi kids and adults participate in sport and recreation in high numbers, and we have an impressive number of winners on the world stage for a country of our size.

But we know the world, and New Zealand, is changing. New Zealand may have a proud sporting heritage, but will future generations' value sport the same way?

This report considers international and national trends and changes taking place in New Zealand's demography and society. It identifies six key themes which will help influence the future face of sport in our country. They are based on a combination of sound evidence and perspectives of people both inside and outside of the sport sector who were interviewed for this report.

The findings pose many questions for all those involved in sport, whether it be in governance, management or delivery, at the grass roots community or high performance levels.

Our population is ageing and becoming more diverse. While our participation rates in sport and recreation are currently high, our lives are becoming more sedentary and obesity is on the rise, especially among young people.

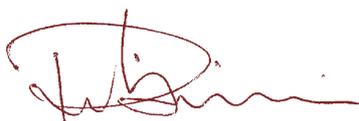
Technology is influencing the way we lead our lives, posing both challenges and opportunities. Connectivity has never been easier, but screen time is increasing.

Sport is increasingly being produced and sold as a product and service and consumers are increasingly demanding offerings which are tailored to their needs. And the world of high performance is getting more competitive and more expensive every day.

The types and ways we choose to participate in sport are also changing across a spectrum of the themes of growing individualisation of sport preferences and a desire to connect through sport.

Sport New Zealand commissioned this report to inform the development of the Sport NZ Group Strategic Plan and Community Sport Strategy 2015-20, and to inform decision-making across the sport system. We also hope it will provide valuable information to stimulate thinking for the sport and related sectors.

We have a world-leading sport system, and we are confident it will respond to these challenges by striving to understand, and then meeting, the needs of today and of future participants so that sport continues to enrich our lives and inspire our nation.



**Peter Miskimmin**

Chief Executive

Sport NZ

# CONTENTS

1	ACKNOWLEDGEMENTS .....	2
2	EXECUTIVE SUMMARY .....	3
3	INTRODUCTION.....	5
4	OUR NATION – NOW AND INTO THE FUTURE .....	6
4.1	KEY TRENDS AND DEVELOPMENTS .....	6
5	IMPLICATIONS OF OUR CHANGING NATION .....	21
6	THEMES IMPACTING ON THE FUTURE OF NEW ZEALAND SPORT .....	25
6.1	THEME ONE: THE OFFERING OF SPORT .....	25
6.2	THEME TWO: INDIVIDUALISATION.....	31
6.3	THEME THREE: CONNECTION .....	36
6.4	THEME FOUR: LIFESTYLE AND HEALTH .....	39
6.5	THEME FIVE: THE BUILT ENVIRONMENT .....	42
6.6	THEME SIX: THE STRUCTURE OF SPORT.....	46
7	CONCLUSIONS .....	50
8	APPENDIX 1: METHOD.....	51
9	APPENDIX 2: INTERVIEW TOPICS .....	52
10	REFERENCES.....	53

## 1. ACKNOWLEDGEMENTS

We would like to extend our grateful thanks to all who participated in this research, as interviewees and in providing data to inform this report. Your time and insights are acknowledged and appreciated. We also acknowledge Sport NZ, who commissioned this research.

This report was prepared by David Todd and Adrian Field from Synergia Ltd with contributions and expert peer review from Sue Godinet and Hamish Mackie.

## 2. EXECUTIVE SUMMARY

This report was commissioned to help sports leaders at all levels and across all codes think about the future of sport. The report does not supply answers. It points to trends, explores implications and poses questions.

Sport is an essential part of the Kiwi fabric. But it is a fabric that is being stretched and shaped by rapidly changing social, technological and commercial forces. For New Zealand to be a vibrant sporting nation we need to find ways to thrive amidst change.

In this review, sport is used in its broadest sense. Sport includes active recreation, casual pick-up games and organised competitions. It includes both community and high performance sport.

The report is based on a review of literature and in-depth interviews with sport leaders and future thinkers.

Demography and technology are fundamental drivers of change. Our nation is ageing and becoming more ethnically diverse. Auckland and surrounds are challenged by growth. Much of the rest of New Zealand is challenged by population decline. Technology is becoming pervasive, influencing the sports we follow, how we watch, how we train, how we connect, how we monitor ourselves and how we think.

**Against this background, the report identifies six themes that are influencing sport in New Zealand.**



### **1. The offering of sport**

How the trends of commercialisation, globalisation and sport branding are creating powerful offerings for consumers, sometimes supporting existing sports, and often challenging them with attractive new alternatives.

### **2. Individualisation**

How technology and personal choices are creating individualised sports activity, as likely to be supported by the 'cloud' as it is by clubs and coaches. Individual sports are thriving.

### **3. Connection**

Countering individualisation is how people strive for community and belonging through sport, increasingly enabled by technology, and challenged by an increasing diversity of cultures and sports offerings.

### **4. Lifestyle and health**

As we live through the 'age of chronic disease' the value of sport and activity is highlighted. Organised sport and technology can help but medical and pharma interventions are emerging that enable a preferred body image without physical activity.

### **5. The built environment**

Most of us live in cities. Are we modifying our city infrastructure and facilities to cater for tomorrow's diverse sporting needs?

### **6. The structure of sport**

The trends above challenge the structure and leadership of sport in New Zealand. Do we have the right capacity, workforce and partnerships to respond?

The report explores each of these themes and prompts readers to reflect on their own sporting code and how they would respond, adapt and build.

For sport to continue as a vital part of New Zealand's culture, society and economy, these reflections indicate that sport will need to:

- Nurture and grow its relevance in people's lives and in their identity within sport
- Understand the choices in the daily lives that sport competes with, and ensure a viable offering is maintained
- Ensure a supportive relationship between elite and community participation
- Forge alliances across sectors
- Link with technological innovation to enhance the experience of sport, whether as a participant or spectator
- Provide attractive work and career pathways
- Understand and respond to the challenges and barriers some cultures and communities have in participating
- Tap into both new and traditional forms of association
- Be open and adapt in the face of economic, social, cultural and technological change.

### 3. INTRODUCTION

This report looks to New Zealand's future over 2015 to 2030, and the opportunities and challenges for sport.<sup>1</sup> The information presented in this report is based on a literature search and interviews with 14 people in a range of roles in the sport sector, and experts in technology, societal change and digital media.

As with any futures research, we are always confronted with three key challenges: the future is not predetermined, the future is not predictable, and future outcomes can be influenced by our choices in the present (Voros 2001). This report does not aim to predict the future. It does however attempt to ground the findings in what we are seeing today, and how the seeds of today might evolve into the future.

This report offers questions, rather than prescriptive solutions. The directions we present are not mutually exclusive. They co-exist and are likely to be part of the lives of different people at different times of their life stages.

It is put forward to support a robust and grounded debate about the future of New Zealand sport, for all involved in sport to think deeply about the emerging opportunities and challenges that could impact people's participation and involvement in sport, and the role we can all play in responding.

This report does not explore major global trends, such as the impact of climate change. Neither does it consider potential changes in New Zealand's legislative/policy environment or future funding pathways and options.

The research was commissioned by Sport New Zealand and undertaken by Synergia Ltd in 2014 and early 2015.

---

<sup>1</sup> In this review, sport is used in its broadest sense. Sport includes active recreation, casual pick-up games and organised competitions. It includes both community and high performance sport.

## 4. OUR NATION – NOW AND INTO THE FUTURE

New Zealand is a small and dynamic country, on its own in the Pacific but part of the global society. As a nation, we continue to evolve and change rapidly. The 2013 census indicated that New Zealand now has 213 ethnic groups, more than there are countries in the world.<sup>2</sup> With the estimated population passing 4.5 million<sup>3</sup> people in September 2014, the New Zealand of today is very different from that of 10 or 20 years ago, and will continue to evolve and change into the future.

New Zealand's past has shaped where it is today and its present state will impact its future. To support an understanding of the future of New Zealand sport we have analysed key demographic trends, of which a summary is provided below.<sup>4</sup>

### 4.1 KEY TRENDS AND DEVELOPMENTS

#### 4.1.1 Population

**KEY POINTS:**

The 2013 census showed the total population of New Zealand was 4,242,000. This represents a growth of 5% since the 2006 census (214,000 people).

By 2030, it is predicted the population will grow by a further 300,000-400,000.

Of the total New Zealand population, 86% live in urban environments. Population growth is predicted to slow/end in most rural areas. Urban centres are more ethnically diverse (particularly for new migrants), and rural areas tend to have older populations.

Auckland was the most populous of the large urban centres, with 33% (1,415,550) of the New Zealand population, followed by Greater Christchurch with 10% (436,053), and Greater Wellington with 9% (381,090).

Auckland accounted for 52% of all population growth between 2006 and 2013. Auckland will continue to have the largest share of the population growth.

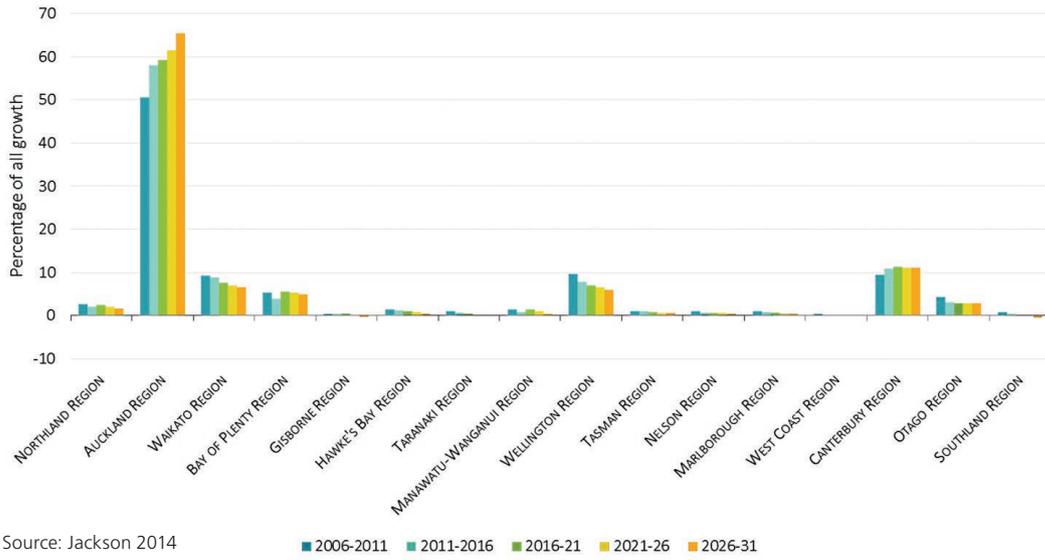
---

<sup>2</sup> There are 196 countries in the world.

<sup>3</sup> This figure is based on the estimated resident population at 30 June 2014. The forecasts are based on recent trends and do not necessarily reflect actual population change. See: [www.stats.govt.nz/tools\\_and\\_services/population\\_clock.aspx](http://www.stats.govt.nz/tools_and_services/population_clock.aspx).

<sup>4</sup> This section draws on information from Statistics New Zealand, a presentation by Professor Natalie Jackson to NZRA's 2014 Thinking Recreation Conference and a report by the Royal Society of New Zealand - Our Futures Te Pae Tāwhiti (Hawke et al, 2014).

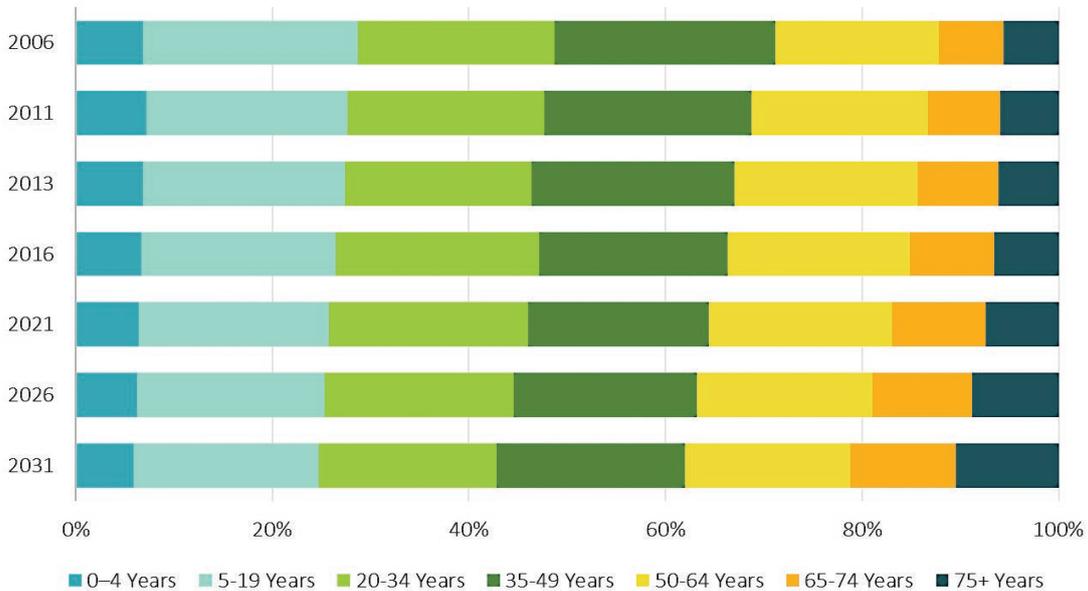
### Auckland and 'The Rest'



Source: Jackson 2014

## 4.1.2 Age profile

### Projected age distribution of New Zealand by year (2006 base + 2013 census)

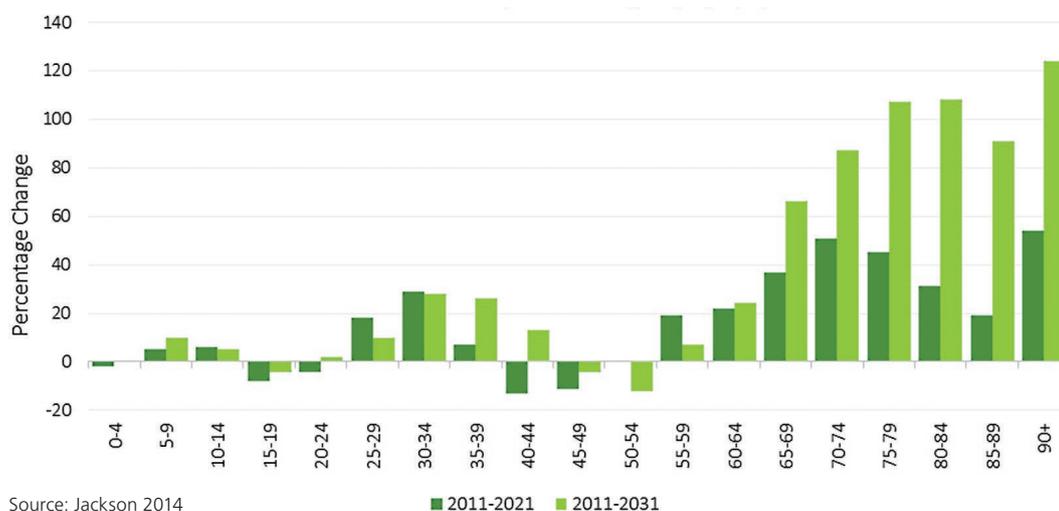


Source: Statistics NZ 2012

#### KEY POINTS:

The 2013 census shows that 27% of New Zealanders are aged under 20 years and 33% are aged over 50. Between 2006 and 2013, there has been very little change in the under 50 age groups, but the number of people aged over 50-64 has increased by 19% and those aged 65-74 has increased by 30%.

## New Zealand projected change by age %



### KEY POINTS:

Between 2013 and 2031, the population is projected to continue to age, with proportionately more people over 65, and proportionately fewer under 50. Consider:

- The number of people 55 years and over is projected to grow from 1.3 million in 2014 to approximately 1.6 million by 2031.
- The proportion of people 65-74 years is projected to increase from 7% to 11% over the same timeframe.
- The proportion of people 75 years and over is expected to grow, from 6% of the 2006 population to 10% of the 2031 population.

That is a significant number of New Zealanders aged 55-75 years plus by 2030.

Older people will out-number children within 12 years and this change has already occurred in 22% of territorial authorities.

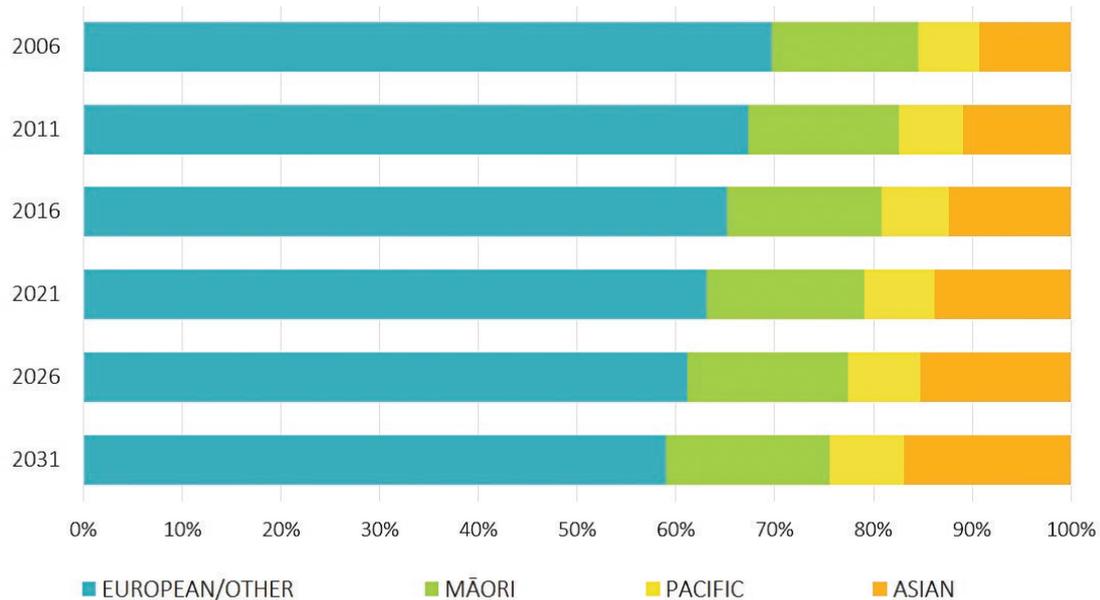
Between 2011 and 2031, all growth in 56 (84%) of the territorial authorities is projected to be for those 65 years and over. The exceptions will be Christchurch, Whangarei, Waikato, Palmerston North, Waimakariri, Wellington, Selwyn, Tauranga, Auckland, Hamilton and Queenstown.

Looking at young people, projected changes in the number of 15 to 19-year-olds mean that there will be 28,000 fewer school leavers over the next 10 years.

By 2021, the majority of territorial authorities will see a decline in the number of 13 to 18-year-olds.

### 4.1.3 Ethnicity

Projected change in ethnic breakdown (2006 base)



Source: Statistics NZ 2012

#### KEY POINTS:

- New Zealand is increasingly a country with multiple cultural identities and values. There are now 213 ethnic groups in the country, with an increasing number of people identifying with multiple ethnicities, particularly in the younger population.

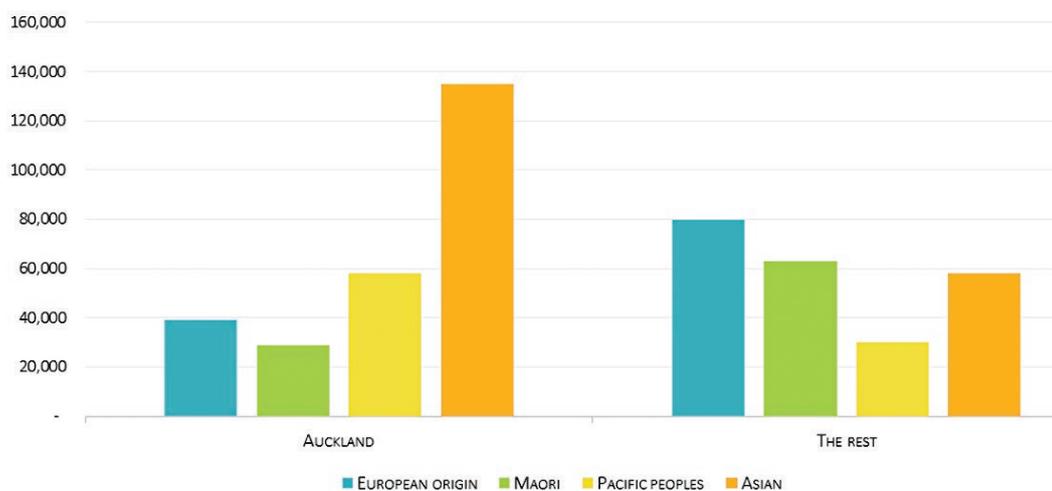
#### SO WHICH GROUPS WILL GROW?

- The European population had the greatest growth in numbers between 2006 and 2013 (360,000 people, 14% increase) but, relatively speaking, the Asian ethnic group grew substantially faster, with an increase of 33% (117,000 people) between 2006 and 2013, and is projected to grow by a further 190,000 by 2021 (135,000 of which will be in Auckland).
- The Māori population increased by 6% over the same period and has a younger age structure; it is projected to grow nationally by 90,000 by 2021.
- New Zealand also has one of the biggest Pacific populations in the world, and this population continues to grow. Auckland's Pacific population is projected to grow by almost 60,000 by 2021, and a further 30,000 in the rest of New Zealand.
- The changes in the ethnic make-up of Auckland will continue to be significantly different from the rest of New Zealand, with major growth anticipated in Asian populations in Auckland and a relative higher increase in European and Māori populations anticipated outside of Auckland.

**“If these new communities that constitute 28 % of Auckland’s population are not playing our traditional sports, then your talent pool has contracted. You’ve always got people exiting out the top as they age, you need a supply of younger people. And so some of our traditional sports are going to face a real challenge.”**



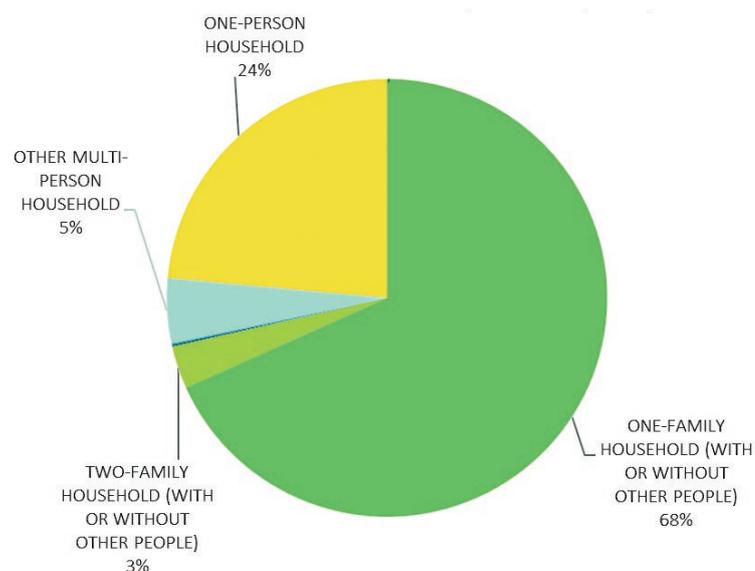
### Projected change in number by major ethnic group\* (2011-2021)



\*Statistics NZ Multiple Ethnic Group Count. Source: Jackson 2014

## 4.1.4 Households and families

### New Zealand household composition (2013)



Source: Statistics NZ 2014

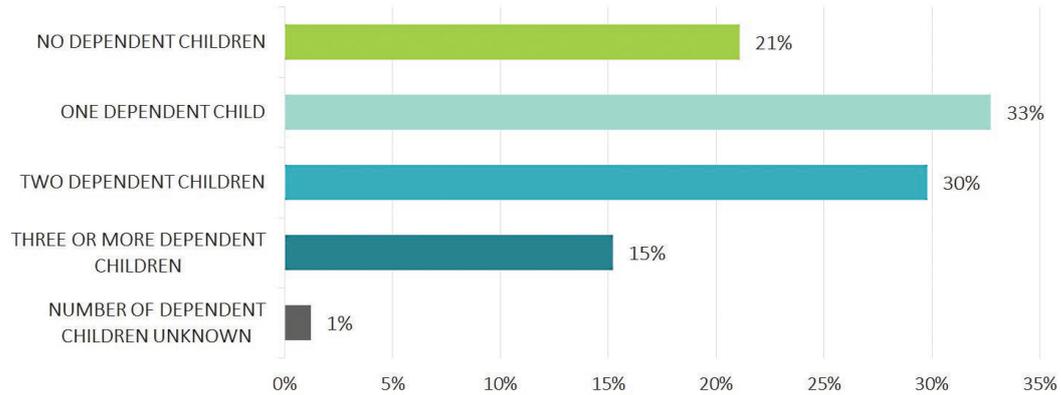
#### KEY POINTS:

There are 1.55 million households in New Zealand. What is a household composed of?

- A quarter of households were one-person households
- Over two-thirds were single-family households
- Only 8% were multi-family households.

This composition has barely changed between 2006 and 2013.

### New Zealand family type breakdown (2013)



Source: Statistics NZ 2014

In terms of families there is also variety.

#### KEY POINTS:

There are 670,000 families in New Zealand:

- One-fifth had no dependent children
- Two-thirds had one or two dependent children (33% and 30% respectively).

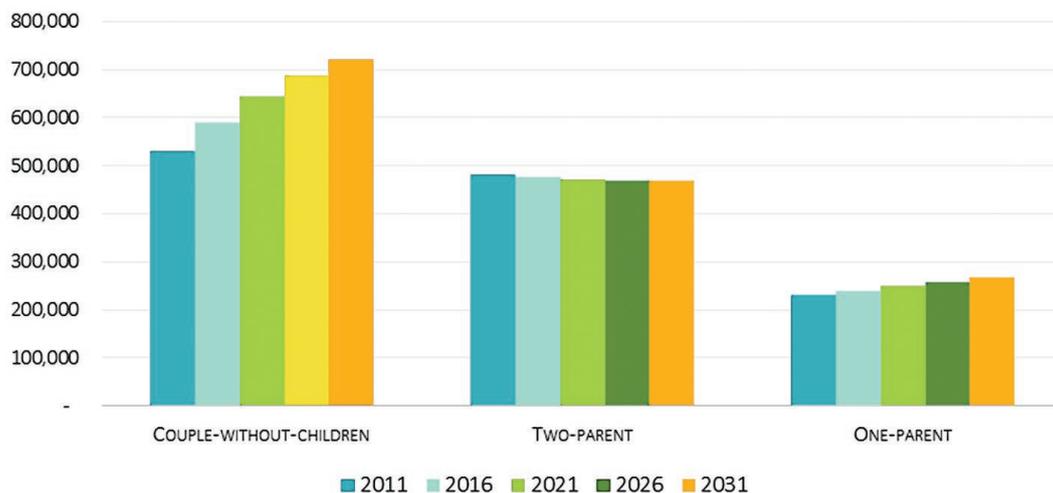
Regardless of whether or not they had children, 70% of families were couples and 30% one parent families.

Overall, a higher proportion of the 'no dependent children' and 'one-child families' have one-parent, as opposed to the multi-child groups.

Families with a large number of dependants are more likely to be disadvantaged, regardless of the kind of household they live in.

Population ageing will affect family type. The growth in couple-without-children households will be due to more 'empty nesters' – couples reaching ages where their children have left the parental home.

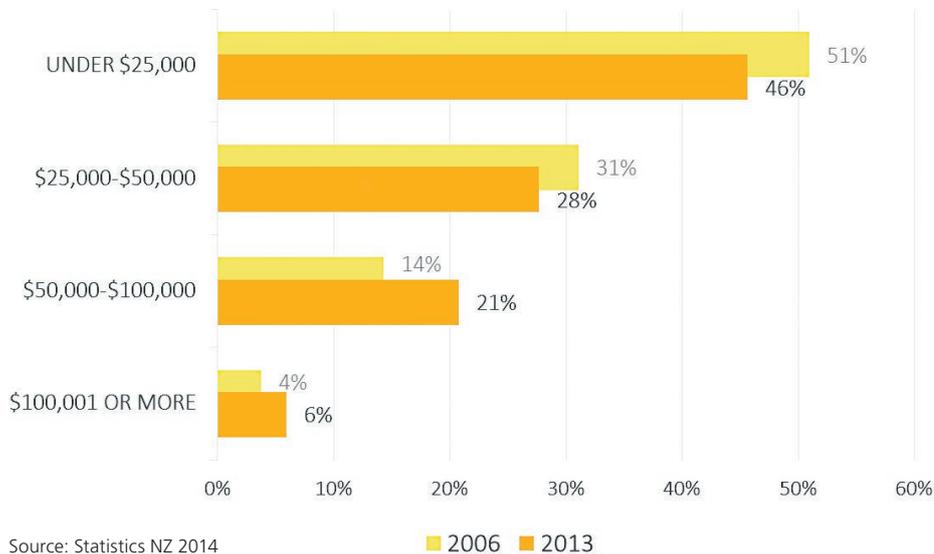
### Projected change by family type



Source: Statistics NZ 2014

## 4.1.5 Income, work and employment

### All New Zealand personal income (2006 and 2013)



#### KEY POINTS:

Our median earnings are increasing:

- The 2013 census showed the median personal income was \$28,500. This was an increase of 17% (\$4,100) from 2006.
- The median household income was \$63,800; this was an increase of 24% (\$12,400) from 2006.

However, there is significant disparity:

- Individuals earning under \$25,000 comprised 46% of the population in 2006; in contrast, those earning more than \$100,000 comprised 6% of the population. In 2012, the disposable income of a high-income household was over two-and-a-half times larger than that of a low-income household.
- The top 10% of households earn 24.3% of the total income, whereas the bottom 10% earn only 3.2% of the total.
- Māori and Pacific unemployment rate is approximately 14% as opposed to 4% for European.

In addition, in 2013, 61.5% of people worked 40 hours or more per week in their main job; this was an increase from 59.2% in 2006. Earnings and hours at work have major consequences on people's available leisure time and choices.

There is a continued shift from primary and secondary industries to service industries.

There is also continued growth in sectors requiring skilled labour (e.g. health and social assistance, professional, scientific and educational sectors) and shrinkage in sectors requiring a low-skilled workforce (such as manufacturing).

**Other interesting points include:**

- There are already fewer younger than older employed workers.
- New entrants to the labour market are struggling – the number of unemployed in the 15-24 age group has grown, with Māori and Pacific over-represented with 16-17% of males aged 20-29 and 25% of females aged 20-29 unemployed. However, youth unemployment is likely to fall as the number of people retiring increases.
- In contrast, the number aged over 65 in employment increased significantly between 2006 and 2013.
- Auckland and other major cities will see more growth in employment and productivity.

Information on the current and future sport and recreation workforce is included on page 48.

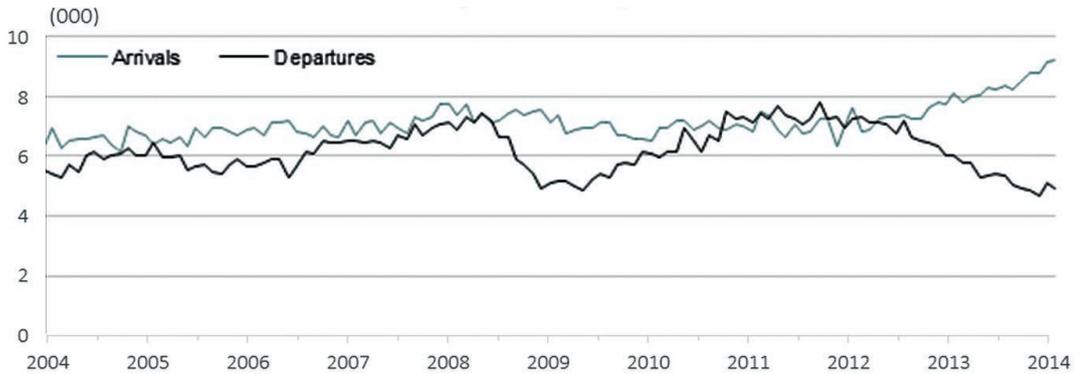
## 4.1.6 Health

### KEY POINTS:

- New Zealanders are living longer than ever before and spending more of that time in good health. A boy born in 2006 could expect to live 67.4 years in good health and a girl 69.2 years. However, while we can expect to live longer, some of that extra time will be lived in poor health (Ministry of Health 2013b).
- The overall leading causes of health loss are cancer and cardiovascular disease.
- Māori and Pacific people have much higher levels of ill-health than non-Māori, non-Pacific ethnic groups.
- Different conditions lead to health loss at different ages:
  - The leading causes of health loss for children aged 0-14 years were infant conditions and birth defects.
  - In youth aged 15-24 years, mental disorders and injuries were the main causes of health loss.
  - The leading causes of health loss in adults aged 25-44 years were mental disorders (particularly anxiety and depressive disorders and alcohol use disorder) and injuries.
  - In middle age (45-64 years), chronic diseases were the leading causes of health loss.
  - In older age (65 years and over), cardiovascular disorders and cancers were the leading causes of health loss.
- It is well established that physical activity has a strong role to play in improving and health and wellbeing and protecting against a wide range of chronic and disabling health conditions. Physical activity levels of adults and young people are presented in the section on Sport participation and lifestyle trends (page 18).

## 4.1.7 Migration

### Seasonally adjusted monthly permanent and long-term migration (June 2004-14)



Source: Statistics NZ 2014

The contribution that migration makes to population growth, relative to that made by natural increase, is likely to increase from the mid-2030s.

#### KEY POINTS:

- June 2014 had the highest net gain in (seasonally adjusted) migrants in more than 10 years (since February 2003) with 4,300 in one month.
- There was a net gain of 38,300 migrants to New Zealand in the year to June 2014, compared with a net gain of 7,900 in the June 2013 year, and a net loss of 3,200 in the June 2012 year.

Migration brings many ethnicities to New Zealand. In 2014, migrants came from: India (7,000), China (6,300), the United Kingdom (5,500), the Philippines (3,000), Germany (2,200) and France (1,900).

Migration also impacts across the country. thirteen out of 16 regions had a net gain of international migrants, led by Auckland (17,800), Canterbury (5,600), Otago (1,100) and Waikato (800).

The traditional net losses to Australia could be changing. The net loss of 8,300 people to Australia in the June 2014 year was well down from the loss of 31,200 in the June 2013 year.

Migration flows can change very quickly and changes are driven as much by the decisions of New Zealanders and Australians as by other nationalities or by immigration policy.

## 4.1.8 Technology

Technological change is an ever-present reality. Technology continually grows in its capability, its reach and its accessibility (in terms of both availability and cost). The rate of change in technology is extraordinary. Who would have thought 10-15 years ago that by 2013 over 83% of the population would have a mobile phone and over 76% would have access to the internet? These changes are enabling people to 'stay connected' at home, at work and while on the go. They are giving people access to greater amounts of information in real-time than ever before. These trends are creating opportunities for sport to be something that can be consumed 24/7, regardless of time or location.

People can stay up to date with their favourite sports from anywhere and participate in sports like never before. The mobile nature of telecommunications and the sophistication of the devices (iPhone, iPad etc) enable the collection and management of data, in real-time, often without the person being aware of it. This is supporting greater individualisation of sport and the data that is collected is creating new opportunities for understanding sports participation – these trends are likely to continue into the future as telecommunications become even more embedded in our lives.

**Some of the key telecommunications trends are:**

- In 2014, 59% of the population indicated they owned or had access to a smartphones; this was up from 48% in 2013. Over the same one-year period tablet/iPad ownership increased from 29% to 39% (Research NZ 2014).
- In 2013, 83.6% had access to a mobile phone, an increase from 71.1% in 2006.
- In 2013, 76.7% had access to the internet, an increase from 58% in 2006.
- These trends are predicted to continue at an ever-increasing rate. By 2020, the number of internet users will reach almost 5 billion. This compares with 1.7 billion users in 2010 and only 360 million in 2000. The number of people gaining access to the web will result from plummeting costs of hardware and exponential improvements in technology, including the explosive growth in the use of mobile broadband.
- New Zealand’s ability to benefit from these changes will depend on having the infrastructure and skills needed to support and use new and expanding technologies.

#### 4.1.9 The economy and the economic outlook

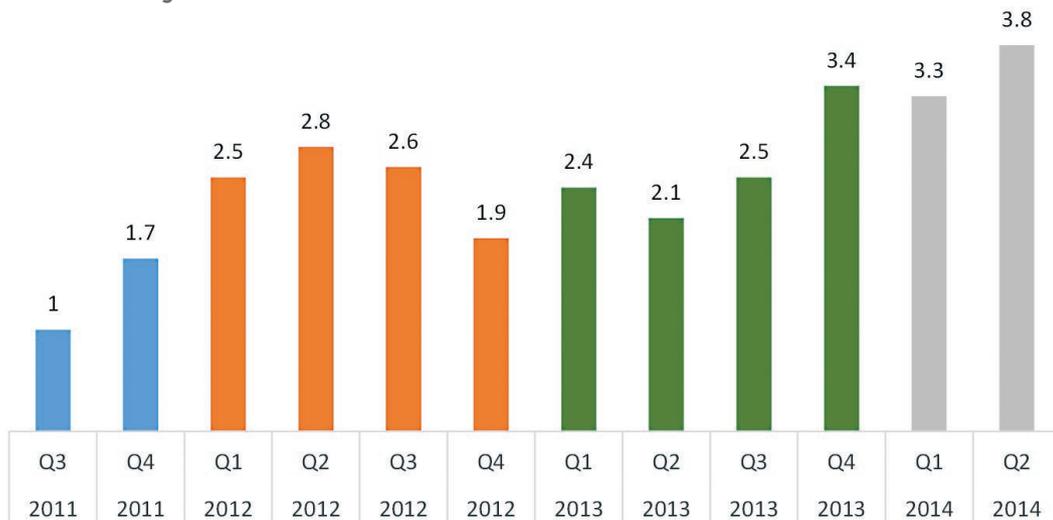
The outlook for the New Zealand economy is relatively positive – with a predicted GDP growth rate of 3.3% in 2014 and 3.8% in 2015 (Statistics NZ 2014). While not as high as some countries such as China, this growth rate represents an increase over recent times and is reasonable given the volatile economic conditions being experienced across the globe over the last few years. GDP growth is one aspect of the economy. Another is how productive an economy is at using its resources to drive value. Some commentators believe that the New Zealand economy is too reliant on low value, low productivity areas and doesn’t leverage its collective resources or people, environment and knowledge to full effect (New Zealand Productivity Commission 2014, Oram 2014). Because of this, we are lagging behind other comparable countries in terms of GDP, wealth, income levels and other key measures of economic performance.

One measure shows that 15% of households live in difficult circumstances, with 6% reporting overcrowding, 5% consider their standard of living low or very low and 15% felt they didn’t have enough money to get by on (Statistics NZ 2014).

**“In the future the NZ economy could go one of two ways – continue as it is on a low-value, low-productivity pathway or evolve towards a world-leading economy delivering high value and greater prosperity. I don’t know what the future holds.”**

Moving into the future, for New Zealand to truly prosper, a shift may be needed towards industries that offer a more productive use of resources, to balance the economy and drive increased value. This shift will take time and require significant political and structural change. If the New Zealand economy could shift to one delivering higher income and wealth then the impact on sport could be profound. People will be able to meet their essential human needs, e.g. food and shelter, and then have the resources (time and money) to be able to afford to participate in sport. New Zealand's shift to a more skilled and niche economy offers high potential for sport both domestically and internationally, such as in tourism and exports.

**New Zealand GDP annual growth rate**  
 - Percent change in Gross Domestic Product

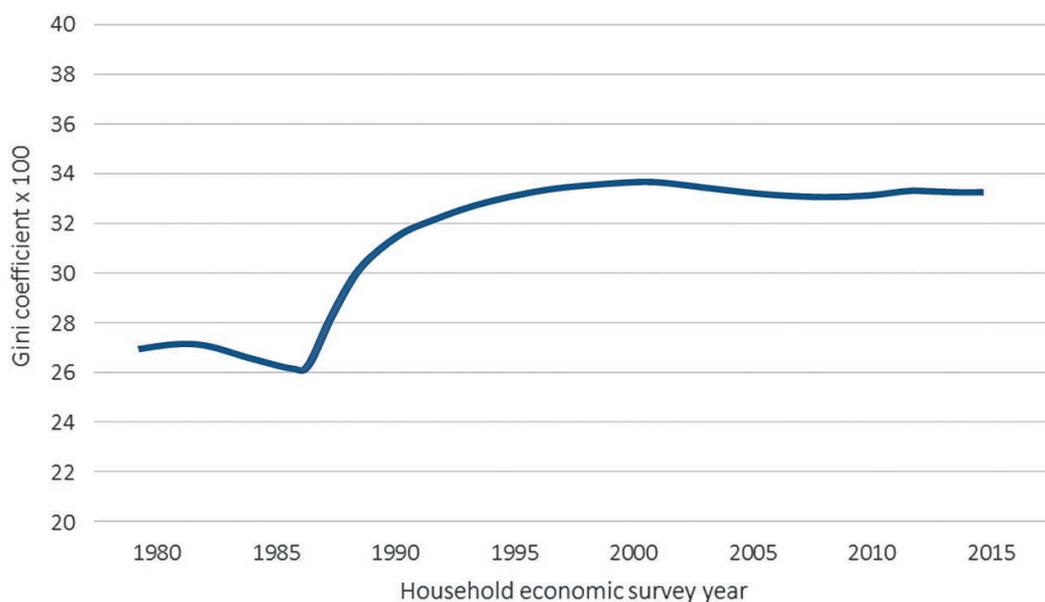


Source: Statistics NZ 2014

There is also an argument that the gap between rich and poor is growing and likely to increase, creating a society of 'haves' and 'have-nots'. One way to measure this is to compare the share of income received by the top decile (10%) of households with that received by the bottom decile. In 2012 this ratio was 8.2 increasing slightly to 8.3 in 2013. This does indicate that there is a significant gap between the richest and poorest households; however the gap has not grown in recent times and there is little evidence to suggest any change into the future (Ministry of Social Development 2014).

The Gini coefficient is another common measure of inequality used internationally. It gives a summary of the income differences between each person in the population and every other person. A higher score indicates higher inequality. A higher Gini coefficient indicates greater income inequality. The graph below shows the New Zealand data from 1980 to 2014. Whilst there was a rapid and significant rise in income inequality between 1980 and the mid-1990s, since then there has been little change, providing further evidence that there has not been a sustained rise or fall in inequality in the last two decades. The New Zealand Gini coefficient does support the view that there is a gap between rich and poor. This may create issues for sport into the future, particularly if the cost of sports participation increases, which may exclude those on lower incomes or drive them towards alternative, lower-cost forms of participation.

### NZ Gini coefficient 1980 to 2013



Source: Ministry of Social Development 2013

### Value of the sport sector

Sport is more than the weekend at the playing field. It is an intrinsic part of the economic and social life of New Zealand communities, whether they are bound by neighbourhood, social or cultural settings. Sport provides a unifying point for communities, and for New Zealand as a nation (Sport New Zealand 2011).

An extensive economic analysis of the sport sector highlights the contribution of the sector to multiple areas of life in New Zealand, including education, income, local government, and the voluntary sector. There are 15,000 clubs (Dalziel 2011) in New Zealand supported by almost 1 million volunteers (Sport NZ 2015). Sport contributes productivity benefits (including 1.8 fewer sick days for active people), reduced health costs (totalling \$1 billion per annum) and improved health outcomes, net of the cost of injury from sport (Dalziel 2011).

The contribution of sport and recreation to GDP, including volunteered services, in 2008/09 has been estimated at \$5.2 billion, or 2.8%. When the opportunity cost of time is considered, the total value of sport to New Zealanders in 2008/09 has been estimated to be at least \$12.2 billion (Dalziel 2011).

The key drivers of the economic value of sport are sport and recreation industries (\$3.8 billion); physical and human infrastructure, such as investment by the education sector and local government sector (\$4.5 billion); and volunteering (\$5.2 billion). These all provide core foundations to sport's contribution to the economy. The continued value the sector provides will be subject to changes in the global and national economy and to investment decisions at national and local levels (such as spending in education, local government and urban development).

## Sport participation and lifestyle trends

New Zealanders have a strong history of participation in sport and recreation both as young people and as adults. Sport and physical activity participation data indicates that while overall we continue to have relatively high participation levels there are areas of concern if we are to try and maintain our strong participation heritage into the future.

### Adults

Active NZ Survey data (for 2013/14) reflects that overall participation in sport and recreation is well established among New Zealand adults, with 74% of adults (2.5 million people) taking part in sport and recreation in any given week (85.1% over 4 weeks and 94.2% over 12 months).

#### Key findings include:

- Participation levels are high for men and women and most age groups, except the older age group of 75 and over.
- Participation sometimes varies with people's socio-economic position (high deprivation participation is lower) and where they live (rural participation is lower than urban).
- Each year 17% of adults take part in one or more sports and recreation events.
- Almost 1 million adults volunteer.
- The most popular activities are recreational in nature (walking, swimming, cycling, jogging/running).
- The most popular sports are golf, football, tennis, netball, cricket and touch rugby.
- Man-made facilities (e.g. paths, cycleways and walkways in town and cities, people's homes and outdoor facilities) are used by most participants (91.3%).
- 67.5% of participants<sup>5</sup> take part in at least one activity three or more days a week.
- 42.4% of participants received coaching or instruction.
- The most common way people pay to participate is pay-to-play i.e. per visit, entry or hire (35.2%).

Trends in adults' sports participation show that, for adults, participation grew by just over 1% from 72.6% in 2007/08 to 74.0% in 2013/14. Groups with the most notable increases were the mid-age group (35 to 49-year-olds), Pacific peoples, and those in a mid-income group (quartile 2).

Young adults' (16-24) sports participation declined over the same period from 79% in 2007/08 to 76.7% in 2013/14. There were also declines among Māori and those in the lowest income group (quartile 1).

Volunteering among adults grew by almost three percentage points from 24.9% to 27.7% in 2013/14.

Overall club membership<sup>6</sup> among participants over four weeks has remained similar (35.8% in 2007/08 and 35.9% in 2013/14). However, *sports* club membership has declined from 19.0% in 2007/08 down to 16.9% in 2013/14.

---

<sup>5</sup>Participants' refers to those who took part in at least one sport and recreation activity (excluding gardening) over 12 months (for further explanations see the report Sport and Active Recreation in the Lives of New Zealand Adults: 2013/14 Active New Zealand Survey Results: [www.srknowledge.org.nz/researchseries/active-new-zealand-20132014/](http://www.srknowledge.org.nz/researchseries/active-new-zealand-20132014/)

<sup>6</sup>Club membership of any type of club (a sport or physical activity club, gym or fitness centre, a social club or work team, or any other club).

While *sport* participation is high, the proportion of adults meeting *physical activity* guidelines (30 minutes of moderate to vigorous intensity physical activity on at least five days over the week) is lower at 51.4% in 2013/14. Overall, the percentage of adults who were physically active has remained relatively constant since 2006/07, for both men and women (Ministry of Health 2014b).

Physical activity trends varied by age group. Since 2006/07, physical activity levels have declined for younger adults (those aged 15-24 years), from 56% to 51%. In the same period, the percentage of physically active adults aged 75 years and older increased from 34% to 42% (Ministry of Health 2014b). Asian and Pacific adults were less likely to be physically active than non-Asian adults and non-Pacific adults (20% and 10% less respectively), after adjusting for age and sex differences. People living in the most deprived areas were 20% less likely to have been physically active than those in the least deprived areas, after adjusting for age, sex and ethnic differences.

Sedentary behaviours have increased, with 14% of adults in 2013/14 doing little or no physical activity (less than 30 minutes in total) in the seven days prior to being surveyed compared with 10% in 2006/07 (Ministry of Health 2014b).

Further, on average, New Zealanders aged over 12 spent over 80% of their leisure time on passive media and social entertainment activities (such as watching TV, playing computer games, or socialising) (Statistics New Zealand 2011).

## Young people

While overall adult participation is positive, when looking to the future it is particularly important to consider the status of sport and physical activity participation among our younger generations. Again while overall participation is high there are signs of concern particularly within the context of the challenges of sedentary lifestyles and environment.

From the 2011 Young People's Survey, we know that almost all young people (aged 5-18) take part in sport (Sport New Zealand 2012a). However, key findings to reflect on include:

- Participation is higher for boys than girls (in most respects), and drops off in the teenage years, particularly for girls. By Year 13, almost half of girls (47%) and over one-third of boys (36%) spend no time in organised sport (including PE).
- Participation also varies with young people's ethnic backgrounds; in particular, Asian young people are less engaged in most aspects of sport and recreation than young people overall.
- Young people in urban areas, where more than 80% of the population live, tend to be less engaged in sport than those in rural areas.
- 10 to 15-year-olds in low-decile schools are more likely to say that their parents/caregivers are less likely to drive/take them to a place to do sport/recreation that they do not have sports equipment available at home and that facilities in their neighbourhood were not available for use.

While a recent international study of 15 countries puts New Zealand first equal for the percentage of children and youth who meet their country's physical activity guidelines<sup>7</sup> (Maddison et al 2014) there are again also reasons for concern in New Zealand. The average proportion of children and young people meeting the guidelines was 69.5%.

Almost all 5-9 year-olds met the guidelines, yet there was a successive drop-off in each older age group with only 19% among 20-24 year-olds (Clinical Trials Research Unit and Synovate 2010).

**Looking at the school-setting in particular there are a number of important patterns and trends:**

- Classes with Year 1 and 2 students only typically spend around 90-100 minutes per week in active PE. There is a slight increase to around 110 minutes for classes with Year 3 to Year 6 students; but the same-sized decrease (back to around 100 minutes) for classes with Year 7 and 8 students (Sport New Zealand 2012a).
- Between 2000 and 2006, levels of children's 'fundamental movement skills' (e.g. run, jump, throw) plateaued (Sport New Zealand 2012b). Teachers are now concerned with new entrant children arriving at schools lacking the necessary skills.
- In 2001, almost one-half of secondary school teachers (45%) were involved in secondary school sport; by 2013 this had fallen to one-third (33%) (New Zealand Secondary Schools Sports Census 2001 and 2013).
- In 2007 the Education Review Office found that 30% of primary teachers did not have appropriate physical education subject knowledge to provide programmes that are suitable for the students in their class. Almost a third lacked the pedagogical expertise to teach Health and PE (Education Review Office 2007).

When considering sedentary time among children there are also significant challenges, with 59% of New Zealand children aged five to nine meeting the recommended maximum of two hours a day in front of a screen, which drops to less than a third (30%) for 15-19 year-olds (Clinical Trials Research Unit and Synovate 2010).

New Zealand children also have the third highest level of obesity in the OECD (11% of 2 to 14 year-olds are obese and a further 22% overweight with higher levels among Māori and Pacific children) (OECD 2014, Ministry of Health 2013a). Therefore, countering sedentary behaviour and variable participation and drop-off becomes more important than ever. Looking ahead, this data suggests that the place and role of sport and physical activity and initiatives to increase young people's physical literacy and improving physical education and sport delivery in schools and communities could be fundamental levers to counter these trends, particularly in urban areas.

---

<sup>7</sup>Physical activity guideline for children and young people aged from 5 up to 18 years recommend 60 minutes of moderate to vigorous physical activity per day and the adult guidelines apply to 18-24 year-olds (30 minutes' moderate to vigorous physical activity five or more days per week).

## 5. IMPLICATIONS OF OUR CHANGING NATION

### 5.1 IMPLICATIONS

#### 5.1.1 Sport and the ageing population

These demographic and social trends are part of what is shaping New Zealand and will have an impact on the future of New Zealand sport.

The ageing population will have a profound impact on sport. A commonly held assumption is that the ageing population will reduce sports participation over time. This may not be the case, and there will be some opportunities emerging from the ageing population.

For many who are living longer, they will bring higher levels of health into older age and expectations of being able to maintain an active lifestyle, albeit in a different form, enabling people to be active and participate for longer.

Against this is the growing incidence of long-term conditions, such as diabetes; many, while living longer, may well have a poor quality of life and will struggle to be active (Koppell et al 2013).

Both of these scenarios require the sport sector, potentially in partnership with other sectors, to offer low-impact opportunities for older people, and support ageing populations to make healthy transitions into older age and to enable self-management of long-term conditions.

Potentially, will the growing number of older people offer a resource to support sport in the community? Older people are acknowledged as making a valuable contribution to their communities in a variety of ways.<sup>8</sup> People tend to be most involved in sports volunteering in child rearing ages, and there may be untapped opportunities for the contribution of older people to support sport in the community, either through events-based volunteering or offering specific skills such as accountancy, IT or events management. This does however require a fuller understanding of the role and contribution of volunteers in the sector (Nana and Sanderson 2013). See section on the sport and recreation workforce for more on this trend.

**“The increasing scale of event such as the Masters Games highlights how people are staying active and participating for longer in competitive sport.”**

#### 5.1.2 Sport, physical activity, physical education and young people

Building a healthy and productive population starts in our children’s early years, and should be sustained throughout the school years and in the transition to the workforce. This will be even more important as we look to counter the growth of long-term conditions, and ensure a skilled, healthy and productive younger population to support the growing older population.

Physical education and appropriate physical activity (developmentally focused) are the foundation for ensuring all children have ‘physical literacy’ so they are confident and competent in movement to lead active lives.

---

<sup>8</sup>[www.msd.govt.nz/what-we-can-do/seniorcitizens/positive-ageing/trends/social-inclusion.html](http://www.msd.govt.nz/what-we-can-do/seniorcitizens/positive-ageing/trends/social-inclusion.html)

Sport and physical activity is a fundamental part of young people's development and participation, and has a key role to play in the contribution young people can make to our economy and society. Although sport offers young people a very small opportunity of a lucrative professional future in sport, it more importantly offers pathways to friendship, leadership, mental and physical wellbeing, and improved academic results.

In New Zealand there are concerns about not only obesity and inactivity among our young people, but also variable quality physical education (PE), physical activity (PA) and sport (formal and informal) being provided to them.

The role of sport and physical activity in the school setting, and its contribution to developing active and inquiring minds, needs to be reasserted. A focus on educating through the physical needs to be supported in a way that takes account of the multiple demands on schools, particularly with the emphasis on topics such as English and maths. Schools are an important community setting as they provide the most accessible, equitable, and sometimes only, space and opportunity for regular, structured play, physical education, physical activity and sport. Therefore, a critical issue is how schools are supported to deliver quality PE, PA and sport to help foster lifelong participation.

### 5.1.3 Sport and disparity

While sport offers increasing opportunities for discretionary expenditure through technology, equipment and fashion, there remains a need for low-cost, neighbourhood access to sport for all. For some, sport can offer professional career opportunities, but it is still a core part of the fabric of New Zealand communities. For the most deprived populations, low-cost sport offers pathways to fitness, health and community bonding. A key challenge for policy makers is maintaining access to sports opportunities and sports facilities for all populations, especially the poorest, despite ever-present fiscal restraint on the part of governments at central and local levels.

### 5.1.4 Sport and ethnic diversity

Population data show, that we have young and growing Māori and Pacific populations and sport is a central feature of the cultures of many of these communities, although the Active NZ Surveys show decreases in participation for Pacific adults from 1997/98 to 2007/08. These populations are over-represented in areas of high deprivation. Yet there are also some significant success stories of sport development in Māori and Pacific communities with lessons to share.

The increasing ethnic diversity represents challenges and opportunities for New Zealand sport. The interests and needs of the growing Asian population, which has lower sport participation rates, should be understood and catered for. For example to what extent will first and second generation New Zealanders seek the same sporting opportunities as those of their families, or will some diversify their interests? To what extent will they continue to favour their traditional sports like cricket, table tennis and badminton?

**“With the Korean, Chinese and Indian we absolutely failed until we had members of that community who they trusted and who could speak their language. Sports need native speakers who are coaches or who can coach from those communities.”**

The climate, urban environments and sporting options that New Zealand provides have opened doors for people to participate, and to participate in new ways. An increasing future requirement is ensuring there are sport offerings that meet the needs of different ethnic groups, their cultures and economic situations.

Many sports (with football, table tennis and cricket being notable exceptions) were failing to attract a range of ethnic groups, and risk being marginalised in some parts of New Zealand as the Asian population in particular grows significantly. Creating opportunities to make sport relevant to our diverse ethnic cultures will be key to the survival and growth of sporting codes in many areas.

Increasing ethnic diversity will also have implications for the sport and recreation workforce. Census data shows that around three-quarters of the workforce is currently of European ethnicity. As ethnic diversity increases, workplaces will need to integrate people from different ethnic backgrounds and acknowledge cultural differences (Nana and Sanderson 2013).

A further issue to consider is how different cultures value sport, and how the value of sport is handed from generation to generation (regardless of the particular type of sport) within all communities. By understanding the motivations and drivers of sport, and the constraints to participation, we can come to understand how to leverage improved participation in the future.

**“When we came to New Zealand there were opportunities to participate that we couldn’t experience in our native countries due to war, climate or overcrowding.”**

### 5.1.5 Sport and disabilities

With around one-quarter of the population reporting some form of disability, a challenge for sport is to ensure it is accessible for all. This extends across making sporting options available (both mainstream and disability-specific), ensuring accessible facilities, and continuously building an inclusive sporting culture. The opportunity is that as sport becomes more accessible for disabled people, it also becomes more accessible for the wider population, enabling other groups, such as older people, to also take part.

### 5.1.6 Sport and technology

Technology enables highly personalised sporting experiences, and also new avenues to community connection. It offers the opportunity to support and drive lifestyle choices and to refine technique and tactics at individual, community and elite levels. Yet while technology’s reach into sport offers much, it alone will not address the challenges of maintaining and building the infrastructure, workforce and volunteers that underpin New Zealand sport. Technology, for all its strengths, is also at the nexus of the competing market between activity and inactivity, offering a breadth of passive consumption alongside enabling active participation.

### 5.1.7 Sport and geography

New Zealand’s growing urban population offers significant challenges to sport. While rural populations are in decline, in many respects they appear to have greater participation than urban areas. New Zealand’s urban population needs to be able to offer sports opportunities that cater to its diverse populations.

The impact of growth and change in Auckland is a critical area of consideration. The diversity of the population could see the preferences of young people and adults change significantly over the next 20 years.

## 5.1.8 Sport and the economy

In many ways sport is a luxury item. If people had to choose between putting food on the table or paying to play sport it is obvious what has priority. Similar pressures apply for councils, schools and governments, yet sport has managed to generally achieve growth in funding since the mid-1990s.

Will this continue, and if lean times return will sport be an easy line item to cut, thereby putting pressure on sporting organisations and programmes?

The New Zealand economy is small in global terms. We do not have the financial resources that the USA or China have at their disposal. As China and other countries continue to develop, the resources they have available will increase. It is fair to say New Zealand will struggle to compete; therefore into the future we will need to be very agile and clever with how we use our funding and resources to get the most out of them.

At a micro level a weaker economy could put pressure on sports clubs as people do not have the discretionary income to be involved in sport.

As mentioned above, the economic outlook for New Zealand is reasonably sound. However, it is important to keep track of economic performance into the future as any changes are likely to impact on the funding of sport and the sports that people participate in.

### 5.1.9 Looking ahead

- How do we ensure sporting opportunities and the sport workforce reflect New Zealand's changing demographics?
- Do we know enough about the sporting preferences and needs of different cultures, and how they value sport? What do we need to explore these?
- What are the key opportunities and challenges posed by demographic change for sport participation and developing the sport workforce?
- Will future generations continue to value sport?
- What are the offerings that sport needs to provide to Māori and Pacific communities, that continue to resonate with their culture and which can support ongoing participation?
- Will the gap between rich and poor create groups of 'haves' and 'have nots' and will this cause people to explore different sporting opportunities and make choices about low-or high-cost sport participation?
- How do we sustainably support schools to provide quality physical education (PE), physical activity (PA) and sport into the future?

## 6. THEMES IMPACTING ON THE FUTURE OF NEW ZEALAND SPORT

The previous section outlined how New Zealand is changing. In this section we build on that understanding with input from interviews with leading sports figures and future thinkers, and additional literature, to inform a discussion on key themes that will impact on the future of New Zealand sport.

### 6.1 THEME ONE: THE OFFERING OF SPORT

#### A VIEW OF 2025

Sport continues to be shaped by the demands of consumers: in participation, in viewing and in product development. The range of sports on offer to play, watch and experience grows as sport administrators and corporates seek to fill every niche of the market and create opportunities at every point on the sports spectrum to add value and make profit. The collection and management of data are central to understanding consumers. Technological advances make the real-time collection, analysis and interpretation of data a seamless part of consumers' interaction with sport.

#### 6.1.1 Consumerism and sport

We are surrounded by organisations trying to convince us to buy their products and services. These organisations are competing for our time and money and go to great lengths with innovative campaigns to gain our attention. Equally we are exerting our power as consumers to tell markets and organisations what we want, when and how we want it. Products and services are increasingly tailored to meet our needs (Gandhi et al 2014).

Sport is not immune to these dynamics. Sport is increasingly being produced and sold as a product and service, and the offering of sport is developing in a variety of ways. This 'consumerism of sport' has been growing over the last 20-30 years and is set to continue into the future. In this respect "*sport is a microcosm of society ... as society has grown more corporate and materialistic ... so too have sports*" (Madigan and Delaney 2009).

In any consumer landscape, the product or service being offered competes against rivals in a market of choice (Finskud 2004). For sport, this means there are many competing demands on people's attention and time, including arts and culture, families, employment, social activities and even simply being inactive. People are increasingly demanding different forms of sports that better suit their lifestyles.

The challenge for sporting organisations in particular is they traditionally see sport as something that people do (and do as it has always been done), rather than consume. It is a significant shift to view people as consumers instead of participants. Consumers have choices and sport leadership will need to continually explore ways to understand their consumers – whether this is at the level of the local club or the All Blacks – to engage our time, attention and resources, similar to other products and services.

To understand consumers and tailor responses to their needs and desires require data and information. Leading brands spend a considerable amount of money and time understanding their customers or potential future customers. In the future, sporting organisations will need to continually look to understand consumers' preferences and opportunities, so they can make an attractive offering to them. They will need to establish data collection and management mechanisms that collect data through traditional channels such as clubs and memberships, but also through the emerging 'unofficial' and casual streams of pay for play and event participation.

## 6.1.2 Sports as brands

Leading sports in New Zealand, such as netball, cricket and rugby, are both sports and brands. They are brands that a plethora of companies, charities and other organisations wish to be associated with. Sport is increasingly seen as an opportunity to create a positive association with values that represent New Zealand, or communities and interests within New Zealand.

In this environment, brands need to be protected and managed. One aspect of this is increasing moves for sport brands to control their own content, rather than leave decisions on delivery in the hands of broadcast companies. The digital platforms are now established, and as costs continue to decline, there are opportunities emerging for individual sports to have their own online channels and other offerings such as apps, which can be tailored to a wider range of audiences. This control enables sport to have greater control over the experience of those involved in the sport from players to viewers. The challenge, however, will be whether or not sports can monetise digital and online products, rather than continuing to derive income from broadcasters like SKY TV.

In a future where there will be increasing sporting choices, people will seek out alternative options that fit their lifestyles. Examples of this include Futsal, Twenty20 Cricket, 3 on 3 Basketball, Urban Orienteering, Rugby 7's, Fast Five Netball, and Tough Mudder. This is only likely to expand in the future.

Another change is the globalisation of sports competitions. Already we are seeing sports being played in the international arena outside their home bases. For example, the Sydney Cricket Ground hosted over 100,000 fans in March 2014 to watch Major League Baseball franchises the Arizona Diamondbacks and the Los Angeles Dodgers play, and NFL was played in Wembley Stadium in London in 2014. This trend may lead to global leagues, with wealthy people owning the players, rather than the sports.

These developments offer both opportunities and challenges to sports participation; opportunities in the sense that increasing exposure of sport may encourage more to participate, or challenge participation by channelling people to more passively following sport rather than playing sport.

Which of these is realised will depend on both the extent to which sport is able to create an attractive offering, and the extent to which sport itself is a viable option in changing community environments (discussed later).

**“Who controls the rules controls the game ... and if the rules are unattractive to our consumers we should actively explore variations.”**

### 6.1.3 High performance sport and professionalism

Sport, as some commentators have written, “is Darwinian, in that only the ‘fittest’ reach the highest level of participation” (Norton and Olds 2001). Compared to other countries New Zealand does very well in high performance sports. At the London 2012 Olympics we were fourth in the list of medals per capita, winning a medal per 340,970 people.<sup>9</sup> We are also world champions in a number of sports. The challenges for high performance sport are how New Zealand can continue to perform at the highest level, how it can attract and retain talent in the global sports market place.

Being a small country we do not have the financial and/or human resources available to us to operate a depth strategy across all sports. For some time, New Zealand has focused on excelling at particular sports in order to increase the chances of success at the highest level. This type of focus will become increasingly important in the future. The rise of China and other powerhouse nations like the UK, with vast resources, will increase our need to specialise and focus at the high performance end. Obviously, there will always be the unique athlete who excels outside of these structures but these examples are likely to become fewer and fewer.

Over the last few decades, there has been a significant rise in the professionalisation of sport. There are fewer purely amateur sports, with the major sporting codes, such as cricket, rugby and football having been professional for some time. The level of professionalism and ‘corporatisation’ is likely to increase into the future. Mixed Martial Arts and Ultimate Fighting are examples of the increasing professionalism of sport, where corporates saw an opportunity in the market for a new ‘product’. It also shows how quickly a relatively new sport ‘product’ can grow and evolve into a significant entity in its own right. The future is likely to see an increasing number of private organisations seeing sport as a business that can drive revenue, profit and shareholder return. High performance sport is increasingly becoming a form of entertainment and while events such as the Olympics received government support, other sports like rugby are reliant on maintaining their audience and fan base. Sport is primarily about people, and as such this increasing professionalism will lead to increased competition for talent across the athletes that play sport, the coaches, managers and administrators. Across these roles, people will increasingly be able to make a living from sport and be able to see sport as a career option.

The risk of a sports ‘brain drain’ to lucrative overseas markets is real and will only increase. New Zealand cannot compete with the financial resources available to some overseas markets. We will therefore need to continue to develop strategies to retain talent. To achieve this we will need to deeply understand what drives our high performance athletes, what their beliefs and values are and how we can develop packaged offerings for specific individuals. As our population changes in its age and ethnic composition, high performance sport may shift towards some areas that have been outside our traditional areas of international excellence.

As a counter to the ‘brain drain’, sportspeople and people working in the sports sector are choosing to come to New Zealand for the lifestyle and to be part of a ‘winning team’. Maintaining both these draw cards will be key to retaining and attracting talent.

---

<sup>9</sup>[www.medalspercapita.com/#medals-per-capita:2012](http://www.medalspercapita.com/#medals-per-capita:2012)

While talent identification, nurturing and support are important to feeding the pipeline of high performance athletes, this research indicates that there is only a very small proportion of the population who have the skills, desire and genetic make-up to succeed at the highest level. One interviewee in this area indicated that in the future we will be able to identify people early in life with the genetics to succeed at the highest level, which will enable us to focus our efforts on those with the genetics and the skills and the motivation – we will be able to target our effort at specific individuals.

An area of significant future opportunity is the technology and techniques surrounding high performance sport. We have a history of developing innovative sports technology, our America's Cup yacht design and building expertise being one of many; and innovation development is a key priority within High Performance Sport New Zealand.<sup>10</sup> By continuing to operate at the leading edge we position ourselves as an owner and exporter of innovation which is beneficial to the country as a whole.

A further challenge is the potential negative consequences of professionalism on community sports participation, including children being pushed into specialisation at inappropriately young ages; pressures from parents to be competing rather than playing, with sport being unrealistically seen as a career option; and negative side-line behaviour from parents.

#### 6.1.4 Experience of sport

People are increasingly being offered new experiences from their sport consumption, in terms of both playing and watching. Viewers don't have to passively sit and watch the game; they can get access to real-time information and hear the referee. Players meanwhile can increasingly get direct feedback on their own performance.

The airline industry is a good example of a sector that understands their service starts the minute you think about taking a trip. It involves choosing your airline, packing your bag, parking your car, getting you where you need to go and back again – it's the end to end experience.

Some sports are beginning to embrace this concept; for example Auckland Transport offers free bus travel to Eden Park or QBE Stadium as part of your ticket, and free Wi-Fi access at train stations enabling people to stay connected while travelling. These add-ons are becoming mandatory items for sport consumers and will become increasingly so into the future. The San Francisco Giants use beacon technology to integrate the in-stadium experience with transport management to ensure when people are leaving the stadium after a baseball game trains and buses are in the places required.

**“Very soon, we will be able to buy a ticket on a personal device – direct from the sport organisation. This will include travel to and from the venue, access to online content before, during and after the event, including access to a full replay of the event for me to watch during the game or later.”**



---

<sup>10</sup>[www.hpsnz.org.nz/Innovation](http://www.hpsnz.org.nz/Innovation)

### 6.1.5 Sport and New Zealand Inc

Brand New Zealand and its association with the great outdoors, and being clean and green, are factors that are influencing people's sporting choices. Sport and recreation tourism was seen by some interviewees as a business that will grow in its contribution to the economy. People already make significant investments of time and money to travel to New Zealand to take advantage of our sport offerings. Research into adventure tourism found that tourists spent \$1.6 billion on adventure activities while in New Zealand (Tourism NZ 2013).

In the same way that education institutions have clear strategies to attract income from overseas students, sport tourism is likely to become increasingly important to the financial viability and sustainability of a variety of sports. The need for this additional income is exacerbated by the increasing demands people are placing on sport to be attractive to them and meet their needs. There are significant opportunities for New Zealand sporting organisations to leverage off this image. For example, Tourism New Zealand has supported the development of the New Zealand International Golf Tourism Strategy (Tourism New Zealand 2014a).

Major events such as the Winter Games, FIFA Under-20 World Cup, the Rugby and Cricket World Cups can likewise project a scenic image of New Zealand that reinforces our clean, green brand. Sport in this way acts as a financially lucrative channel for broader tourism promotion, and promotes the attractions of New Zealand to people whose countries have higher pollution levels, or outdoor environments which are less conducive to outdoor activities. This is a key component of Tourism New Zealand's marketing of New Zealand (Tourism New Zealand 2014b).

However, in the future though New Zealand will struggle to host bigger events such as these. This is seen already with our decision not to bid for the Commonwealth Games and our recent withdrawal from the 2019 FIFA Women's World Cup and 2018 Under-20 Women's World Cup. This will at the same time create space and capacity for New Zealand to play a bigger part in niche events for specific sports, growing sports and sports events that other larger economies aren't interested in. It will also drive a response from within New Zealand to create unique events that utilise and showcase our rich national resources.

### 6.1.6 Greening of sport

In many parts of the world, the sports industry is showing itself to have a role in environmental sustainability. In the US, a 'Green Sports Alliance' has been formed to help sports teams, venues and leagues enhance their environmental performance. Since its launch in 2011, the Alliance has grown to encompass over 200 professional and collegiate teams and venues from 16 different sports leagues. This is seen to offer sport attractive financial and environmental bottom lines, including reducing costs, such as energy and waste; generating new fan bases and revenue; reducing environmental impact; and raising public awareness (Wharton School 2013). In New Zealand, top athletes have banded together to create Project Litefoot, to role model environmental sustainability.<sup>11</sup>

Increasing awareness and mitigation of environmental impacts are also occurring in sports product development, with a range of companies competing to show their environmental credentials (Adidas for example reports an average resource consumption per pair of sports shoes) (Subic et al 2014). For the future, it is possible that, just as currently many consumer goods (including cars and home appliances) carry energy ratings, products like sports apparel will be required to have energy audits or ratings, or will be measured against a sustainability index (Hanna and Subic 2008).

---

<sup>11</sup><http://www.projectlitefoot.org/>

Alongside environmental awareness, sport has for many years shown a willingness to support social causes, such as in charity sports matches, sporting celebrity endorsements of organisations such as Starship Hospital, or participative fundraising events such as Relay for Life. This reflects that despite the commercial emphasis that modern sport demands, it remains grounded in the fabric of community life, and has an ongoing role to play in both the social and the environmental life of New Zealand.

### 6.1.7 Looking ahead

- How do we understand sport consumers' preferences currently?
- What skills are needed in our sport workforce to embrace a stronger consumer-led sport offering?
- How can we leverage off New Zealand's strong sporting brand to maintain its place in the global sports landscape?
- Will sport continue to be seen as a public good or as a private investment?
- Is there a risk that increasing levels of corporatisation mean the essence of sport is lost because of the financial drivers?
- If the focus of sport is on the commercial development, what role is there for volunteers?
- Do sports organisations have to consider all customers or do they have a core business that meets needs of a certain group of people (i.e. the traditional outdoor game version) and other organisations meet other needs (such as the indoor non-traditional game version)?

## 6.2 THEME TWO: INDIVIDUALISATION

### A VIEW OF 2025

Sport organisations and the sport industry constantly look to see how they can tailor their offerings to individual needs and preferences. This creates ever more diversity and fragmentation in sport, but has enabled ongoing growth in sports participation. Technological developments, such as personal clouds and virtual reality-based coaching and participation, enable highly personalised sport experiences, participation and development. Sports team coaches and gyms alike use cloud-based analytics to create personalised training schedules for people's daily active life. At the same time, individualisation continues to mean for many a detachment from technology and a different type of personal connection with sport.

### 6.2.1 Individualising sports participation

Over the past 30 years, the world's social and political economy has shifted towards individualism across many spheres, and away from traditional social institutions such as church, labour unions and family. Individualisation is the process by which society increasingly adapts to the needs and preferences of individuals (Hansen et al 2006).

Within this self-oriented outlook, there has developed a more consumerist and choice-oriented society. New opportunities are emerging for bringing sport directly to individuals through the commercial market, informal links between people, and the third sector.

In New Zealand, we are seeing this emerge in many ways, such as the growth of 'pay for play' sports events and activities, such as ocean swimming, mountain and road biking, and running events, as well as golf and indoor sports participation. At all of these, often many thousands of people will train and attend or participate, but outside of the traditional club structures.

Around this lifestyle shift have grown new sports initiatives and ventures that support people in making these choices. Mountain bike parks, open space fitness opportunities (such as boot camps) and low-cost 24/7 gyms have become commonplace. Other ventures and initiatives, such as pick-up games, street games and parkrun (who organise free, weekly 5km timed runs around the world that are open to everyone, free, safe and easy to take part in), offer opportunities to drop in on events in an informal manner. Common to all of these are people-centric models that respond to individual preferences, rather than demand compliance to a facility/organisational-led model.

**“What has grown hugely and it's continuing to grow is casual running. Look at the popularity of Auckland Marathon and the Rotorua Marathon. They've had the highest level of entries ever and highest number of foreign entries ever. They made a profit rather than a loss. So people want to be able to do whatever it is, sport, activity, recreation, in a more flexible way that fits their lifestyle.”**

Individualism itself drives diversity and fragmentation; people look for more personal ways of expressing their connection to the world around them. Kite surfing was raised by one interviewee as an example of a new sport where participation has grown from a zero base inside a decade. In sports participation, this can also be seen in the growth of extreme sports that have become increasingly popular, both as a participation opportunity and as a viewing experience, which in turn is driving a substantial sports industry (Millar 2010). The constraints of established sports can be set to one side to enable their own expression of fitness and art within sport.

## 6.2.2 Supporting choices through technology

The health and fitness industry is becoming increasingly attuned to providing ways to deliver people's personal sports solutions via technology. The wealth of personal quantification apps available on people's smartphones and watches already supports people to understand their lifestyles, such as diet, exercise and sleep.

But instead of simply reflecting on what has been done from disparate apps, mobile technology is expected to support and drive lifestyle choices through integrated systems. One highly anticipated area of development is the growth of 'personal clouds', which will assemble personal health, lifestyle and consumer information, in ways that individuals will themselves control. They will support people to make sense of their schedules and fit their lifestyle and social activity into their days and link with the products and services they value (Cameron 2013, Summers 2013). The distinction from current 'big data' is a shift from owning data about an individual, to supporting people to obtain value from their own data in their lives. These cloud-based systems have the potential to learn, reason and engage with people in more natural ways to enhance our lives and help us make smarter decisions.

Potential future avenues for such development include personalised coaching, providing immediate feedback on individual technique and supporting personalised skills and fitness development; and identifying patterns of play in team sport and using this to provide rapid feedback.

**“I connect with my friends only and organise a time to ride. I don't want to be stuck with a club schedule.”**



**“These days \$100 will get you a feature phone but next year \$100 will get you a basic smartphone, and it won't be an Apple but it will be an Android. It will probably be made by a manufacturer you haven't heard of, and that's going to be out of China. ... It's going to be quite profound how quickly that technology pushes into people's everyday life. In any kind of advanced economy where you've got network connectivity, the hardware isn't going to be the problem.”**



Technology such as this is being adopted by elite sports, but the inevitable evolution of technology is from highly bespoke customised offerings to mass produced products that are widely available. Such developments are likely to emerge on a wider scale. The alliance of inexpensive mobile hardware, software innovation, cloud functionality and data creates an opportunity for people of almost any income bracket.

Yet while technology offers new opportunities for sport, there will remain a large number of people for whom sport is something that is inherently low tech. This is often a statement about seeking to engage with the world on more simple and stable terms than the ever-changing world of technology offers, and sport in the forms of yoga and tai chi, in spaces with direct connection to a teacher or fellow participants, will remain valid and popular.

**“But there is also so much sport and recreation which is wonderfully low tech. And I don’t just mean gardening or walking. But things like yoga, or tai chi, where, you know, no equipment other than a mat or a folding sword is required. And that is hugely part of the mix too. Because while one can have enlightening moments in sport, they tend to be about sweat and effort and grit and determination, which is fine. But there’s also, I think, a hunger for a physical, mental, spiritual connection.”**

### 6.2.3 Individualising the sports spectacle

How sport is viewed continues to change rapidly. A decade ago, the growth of subscriber television had substantially opened up the range of sports viewing choices, but the rapid growth of online viewing has taken this to a substantial new level. Historically, even with subscriber television, sports consumption was synchronistic; people tended to watch it at the same time, and watching it outside the allotted time of broadcast was the exception.

The internet enabled people whose interests were considered niche or obscure to be connected both to each other and to the interest they followed passionately. This ‘long tail’ of the internet (Anderson 2004), which originally referred to the purchasing power of once small and dispersed markets, has now extended into online television. This has exponentially expanded the viewing options of a plethora of sports, enabling individuals to choose the time at which sport can be viewed, and the length of time that sport can be consumed. Now short form content is the norm not the exception. A range of extreme sports have developed with significant corporate investment behind them, with highly packaged content, all of which can be accessed at a time of choosing.

**“A lot of that content is designed to be consumed primarily online and ... it falls into the extreme sport category. There are all these kind of strange niche things that have a kind of a culture to them, whether it’s huge wave surfing or cliff diving. ... They brought back Formula One plane racing where they fly circuits around these huge inflated kind of pylons, which is something that they did back in the 30s.”**

The challenge for live sport events is competing with this choice, and leveraging the value they offer through the stadium experience with the attraction of online opportunity (Fisher 2011). Signals from the blogosphere point to some interesting innovations already planned in 2014: iBeacon technology that can show people to available seats and facilities; professional teams owning their own media content; niche apps to customise fan bases; and tailored content marketing direct to fans (McClellan 2013).

## 6.2.4 Mass customisation

The concept of mass customisation – where consumers are able to customise their shopping with a range of individual features – is well established in the sports apparel industry. It takes people away from the Fordist era of mass production where individuality was sacrificed for price and durability, and into an era where portability, flexibility and diversity are encouraged. The next wave of customisation will be even more tailored to people's needs, assisted by social technologies, enterprise and production software and flexible production systems. Where today people can order shoes online with different colours, tomorrow people will be purchasing clothing that is directly tailored to their body shape using 3D scanning or modelling (Gandhi et al 2014). These products will not be shipped. They will be printed locally using 3D printing technology. A number of New Zealand schools already have 3D printers and students are exploring the use of this technology today.

## 6.2.5 Time use

According to a range of media reports, people feel like they have less time on their hands than they used to. There is a sense that people are increasingly 'eating breakfast on the run' and have less time with their families than they would like (Hills 2012). Other reports suggest that while technology may be saving us time, people feel busier now than five years ago (Wade 2013). The changes in smartphone and tablet technologies enable people to be constantly connected, and this is being seen to blur the spaces between work and leisure.

These very clear perceptions are, however, not evident in the most recent comprehensive data on New Zealanders' time use, from 2009/10. Whatever the perceptions, the changes at a population level are more subtle (Statistics New Zealand 2011).

The top five activities that New Zealanders aged 12 and over spent most of their time on was unchanged between 1998/99 and 2009/10. These activities were sleeping, paid work, watching television, eating and drinking, and socialising with others. These activities accounted for 69% of an average diary day in 2009/10 and 68% in 1998/99. How that time is used however is changing. The trends show increasing time on watching TV (up seven minutes on average). There was also an increase in video games, particularly among males (17 minutes in 2009/10), with a corresponding shift away from active sport for males (nine minutes in 2009/10). However, overall there was no change in the amount of time on exercise or sporting activities (19 minutes). People were also spending half as much time in 2009/10 on unpaid work for other households and organisations as they were in 1998/99 (six minutes per day for males and eight minutes for females).

**Total time spent on New Zealanders' main daily activities – sleeping, paid work, watching TV, eating and drinking, and socialising – did not change between 1998 and 2010. While there have been some changes within each of these, there was been no change in time spent on exercise or sporting activities.**



While the changes are small, they do highlight the competition for people's time between activity and inactivity (one where technology clearly shows a downside), and the declining time being spent on volunteering in general. The latter is also consistent with Active NZ Survey data, showing some declines in sport participation (among young adults) and club membership between 1997/98 and 2007/08 (Sport New Zealand 2013).

These findings suggest that people may not necessarily be increasingly time poor, but that time poverty could be a reflection of different life stages. People of 'prime working age' (25-44 years) and middle age (45-64 years) have the least free time and do the most child care (Statistics New Zealand 2011). Circumstances such as these perhaps explain why people appear to be responding to opportunities for sports that take less time, for themselves (such as Futsal), as well as junior modified sports for their children (such as FlippaBall and Rippa Rugby).

Professional sports are similarly tapping into shortened formats for the commercial opportunities they offer, by attracting more families and developing new fan bases among people who are cash rich and time poor (Gammell 2014); in New Zealand, notable examples include Rugby 7's, League 9's, and Twenty20 Cricket. Notably, these are competing in a market place of shortened formats, creating its own challenges for ongoing sustainability of sport.

### 6.2.6 Looking ahead

- What can sports organisations and the sport workforce in New Zealand offer to those seeking more flexible opportunities for participation?
- What are the opportunities and issues for the sport workforce to meet those demands?
- How will sporting structures (venues, governance and rules) need to adapt to support the increasing levels of individualism?

## 6.3 THEME THREE: CONNECTION

### A VIEW OF 2025

New sports communities diversify and flourish through social media connections, which are developed informally as well as through the not-for-profit and sports industries. Sports leadership at national and club levels radically re-consider who their future participation base is drawn from; they build a following and membership base in a variety of forms across communities who have traditionally been outside their usual catchment. Local sports hubs become connectors of individuals to social teams looking for players at different levels. Iconic pay for play events up and down the country provide a focal point for community volunteering and fundraising, and bring much needed revenue streams into local organisations. Sports teams are making widespread use of low-cost coaching and development software that analyses their play and provides real-time feedback on alternative positioning and teamwork.

### 6.3.1 Creating new sporting communities

While individualism is a strong and growing theme in sport, people still strive for a sense of community, or connection to other people and endeavour. Sport has been long seen as a key foundation in community building, through participation as volunteers, through involvement in community associations such as clubs, as an avenue for positively channelling the energy of young people, and creating local pride and sense of place (Sport England 2008). New Zealanders' changing work patterns may lead to increasing numbers of people working at home or remotely from a central office environment. A 2001 report indicated that 15% of work was done at home, or away from the office (Callister and Dixon 2001). If this rate increases, which this study indicates is likely, then there will be fewer opportunities for connection. People are likely to seek out opportunities for greater connection with people.

Traditionally one way to be connected came from participating in sport and being a member of a club. Clubs have locations, members and run social events. They offer opportunities to meet people and get involved in the community. But the consistent message received in interviews for this study is that club membership is declining, which is supported by the Active NZ Survey data. This is also consistent with international debate surrounding the changing nature of civic participation (Putnam 2001). The trend over recent times has been for people to move away from formal club memberships to more informal levels of involvement (Green 2010, Sport NZ 2013). This is not uniform across all codes and all areas. Some codes, such as football, continue to grow in popularity, and attract people from a variety of ages and ethnicities. Finding sufficient number and quality of playing fields is a real problem in some areas.

**“I’ve been cycling on Saturday morning with the same bunch of people for 15 years. But I actually don’t have a great deal to do with them the rest of the time ... we’re a little community. We’ve got a Facebook page and we exchange messages.”**

Critical to the future of any sport, from entry level to high performance, is the availability of committed and often unpaid people who can manage a team, impart skills and tactics, and provide support and encouragement to individuals and teams. Active NZ data between 2000/01 and 2007/08 indicates a decline in people volunteering for sport or recreation activity (SPARC 2008a). A decline in volunteer teacher coaches is also being seen across the schooling system (NZ Secondary Schools Sports Council 2013). However, counter to the decline in face-to-face coaching resources is the increase in availability and quality of online/virtual coaching, with some people and teams choosing products like Coachbuddy, Kinovea, Movitae, and Coach Plus (Brown 2012) to receive coaching that is tailored to their needs; this option will become more sophisticated and more widely available in time.

If traditional associations are declining, what are the new forms of connection emerging? A current and growing trend is for people to organise their own club or group; a club defined on a group of people's collective needs or a person's individual terms, which provides the level of connection and community that they desire, without locking them into a pre-defined structure, time or place.

People are increasingly consuming sport via pay for play or entering specific events to participate and be connected to the sporting community; for example, 22,000 kids participated in the Weetbix Kids Tryathlon series in 2014.

Traditional sports clubs and organisations still have a place and will continue to do so into the future. They will however need to evolve. Clubs around the world are reinventing themselves to survive and improve revenue, offering a range of options and pathways for participation.

**They include:**

- Golf clubs exploring options to offer a greater range of social activities including using the golf club for weddings or non-sport activities
- New marketing and membership strategies for Tri NZ (Sport and Recreation New Zealand 2009a)
- Development of Sportsvilles, which are partnerships between sports related organisations/clubs to establish an independent entity owned by the clubs that works in a strategic way within multiple internal and external stakeholders
- The Netherlands Test Bed: NewSport Opportunities, which consists of 15 sport clubs or clusters of sport clubs which introduce people to a sport they are unfamiliar with. A general principle is to be flexible in mixing and matching various activities and offering more accessible versions of existing sports
- The Club Together programme in Scotland, which is a simple scheme which involves Scottish Athletics and local partners jointly investing to fund a part-time Club Together Officer post, to help the club develop and improve.

**“I enter events when I can. As long as I do a few a year I feel like I’m part of the running community.”**



**“What we want is to move from a membership structure we’re now getting in other ways. We’re getting connections, we’re getting commitments. We’re getting social interactions. Everything that benefits and membership used to bring are now free and easy to easily deliver through technology, through other aspects of society.”**



Connection is also important for volunteers, offering a way to be part of sport, when direct participation is not possible or desired. In this new world, traditional volunteering is likely to continue to decline or remain static, but new forms of volunteering will rise; volunteering to support the organisation and running of an event will replace volunteering at the club; but offer an equally valid form of community support. The T42 event in Owhango offers the community an important focal point to fundraise for local ventures, such as the volunteer fire brigade, at an annual event where hundreds of people converge from different parts of the country. The Round the Bays is another example of how a community can engage and gain value from an event.

New and emerging sport facilities are embracing the need for community and connection, by locating themselves where people are and co-locating with schools, clubs and other community sports facilities to create hubs that provide important means for community building in the future via sport.

In the US, an emerging new development is for-profit 'sport and social clubs', catering to people in their 20s and 30s, and commonly featuring co-ed teams, playground sports and social components such as sponsor-backed bar gatherings and end-of-season parties. They offer low-cost registration – particularly attractive in times of economic restraint – and have become very popular in many cities, with two clubs in Chicago together boasting over 100,000 members. A downside of their growth has been the monopolisation of public playing fields and park spaces (Odom 2009).

### 6.3.2 The technology value-add for sports connection

Technology is a theme that is woven across many areas of this research. Its actual and potential for significant change is demonstrated in discussions on individualisation, the offering of sport, and lifestyle and health.

What is emerging with technology, particularly mobile technology, is the ability to quantify, analyse and drive changes in behaviour. This has already been shown in individual sports participation, but could equally be captured in a way that creates group participation, and becomes a tool to support coaching and development at all levels.

Social media and other forms of technology are lowering the barriers to entry for activity, with people being able to use technology to organise and manage cycling or running groups, MapMyRun being one of many examples. Facebook is an informal connector of people for a range of activities, and web-based products such as Squadify offer connections to sports opportunities globally.

Mobile phone applications such as RunKeeper and Nike (+) Running, which enable users to track their personal data, and allow people shared access to this information as a virtual community, are also examples supporting this theme. Nike Training Club claims to be the "world's biggest female fitness community". These platforms also integrate coaching and motivational components to support the user without the need for support from an actual coach.

**“Actually tracking players around a court based on computer vision is not a hard problem to solve and suddenly you could actually have a top down view of where everybody was on the court and it could be doing instant analysis, like ‘you should have been there’ and ‘look, everyone’s clustering too far’ and ‘everyone’s too far forward’. All that kind of analysis used to be super hard and these days it’s actually becoming trivia.”**

### 6.3.3 Looking ahead

- What are the avenues for coaching and other forms of volunteering in future forms of sport, both within and outside of traditional clubs?
- How can clubs be part of the new forms of connection that are emerging?
- What role can technology play to support stronger connections within sport?

## 6.4 THEME FOUR: LIFESTYLE AND HEALTH

### A VIEW OF 2025

Sport continues to have a vital role to play in keeping New Zealanders healthy and well, and contributing to the prevention of long-term conditions. Signs are emerging that the rising tide of the obesity epidemic has begun to ebb, and the rate of growth of diabetes is slowing. To reverse the growth in long-term conditions, governments and health insurance companies regulate to incentivise healthy living.

Sport leadership looks to provide offerings that meet the needs of New Zealand's increasingly diverse communities and support healthy living. In parallel, the school curriculum strengthens its physical education capacity so that activity becomes a daily part of young people's development. Advances in medical and beauty technology and treatments will offer increasing opportunities for quick fixes, which could threaten the relevance of sport in health and wellbeing. In response, sports leadership will position itself around the benefits of participation that technology alone cannot offer.

### 6.4.1 A partner in health

Sport and recreation is well-established as a major contributor to health and wellbeing. Sport has a key role to play in containing the growing costs of healthcare, and in preventing and managing long-term conditions such as diabetes and cardiovascular disease, as well as mental health. Sport also offers the growing older population opportunities to support older people to navigate the health issues that arise with age, by contributing to falls prevention, reducing pain and stiffness in arthritis and protecting bone health.

From Active NZ Survey data, we know that participation in sport and recreation is well-established among New Zealanders, with 96% of the population participating in some form of sport or recreation in the past 12 months (SPARC 2008a). From the Young People's Sport Survey, we know that almost all young people (aged 5-18) have taken part in sport at least once "this year", and that the majority of young people like playing sport (Sport New Zealand 2012).

From the perspective of supporting health and wellbeing, a priority is sustaining activity on a regular basis. However, just over half of the population (54%) meet recommended physical activity guidance (30 minutes' or more physical activity five times per week), with women, Pacific people, Asian, older people, and people in higher areas of deprivation being less likely to meet guidance levels (Ministry of Health 2013a). Furthermore, an increasing proportion of people are doing less than 30 minutes' activity per week. Somewhat more positively, there was a reduction among children watching two or more hours of television per day, but this is offset by a continuing rise in childhood obesity.

The cost to society of being unhealthy will continue to rise, as the incidence of long-term conditions likewise continues its growth path, fuelled by the obesity epidemic. Western nations, and in likelihood soon to be followed by developing nations, have entered what has been termed an 'age of chronic diseases', whereby the declining risk of communicable disease is replaced by a growing incidence and impact of long-term illnesses, such as diabetes, cancer and cardiovascular disease (Maartens 2002).

Three possible futures have been identified emerging from the current 'age of chronic diseases':

- The age of emerging infectious diseases, with new infectious diseases, such as SARS and avian flu, and drug-resistant new strains of existing diseases developing
- The age of medical technology, where increased health risks from environmental and social changes are offset by developments in technology, enabling rapid health fixes for those who can access or afford such treatments
- The age of sustained health, in which health policies drive population health improvements that also support the health of future generations, health systems are well adjusted to an older population, and disparities in health between rich and poor nations are steadily diminished (Maartens 2002).

These alternative futures are not mutually exclusive. If the age of sustained health is to be achieved, the sport and recreation sector can be a pivotal player in making this happen. Furthermore, the plethora of sport and recreation opportunities being introduced potentially increases the contribution sport can make in this area; their tailoring to the time demands and other needs of people can enhance sport's contribution to health.

### 6.4.2 Technological fixes

Already, we see fitness centres competing not only with each other, but with organisations and products that offer health and wellbeing solutions. New frontiers being opened up in medical research and treatment, and beauty treatments, offer either a possible threat, or a complementary role to sport and recreation's role in health and wellbeing.

A range of commentators have predicted the rise of medical interventions that will not only arrest long-term conditions, but provide a cure. Where currently medicines are used in combinations to meet the personal circumstances of each patient, the future offers personalised medicine that is even more closely attuned to the pathology of an individual, and regenerative medicine using the body itself to fight disease and repair damage (Gandhi et al 2014, Christie 2013, Winslow 2012). In an increasingly individualised world, this extends not only to improving health, but also to maintaining and even improving beauty (Hancock 2008).

If, in the short to medium term, quick fixes for health problems, and beauty treatments, offer less radical interventions than, for example, bariatric surgery or plastic surgery, the need for the hard yards of fitness and sport may become less pressing. People won't need to be active to attain the health and lifestyle that they desire.

With these challenges in mind, sport will need to tell compelling stories of personal satisfaction and connection, and other benefits, that medical and product offerings simply cannot offer. Sport also offers the potential for connection, meeting a core social need of people, in a way that a medical fix is unable to satisfy. A growing number of fitness centres have established themselves in this space, by offering complete health and wellbeing packages to their members, beyond the traditional core of gym equipment and classes.

For those that can't afford fast fixes, or whose personal outlook still values effort and natural processes of personal improvement, sport will remain a viable offering of a low-cost route to health. The extent to which health systems will be able to expand to meet the costs demanded by technological advancement is also debatable, and from a public investment perspective, sport should retain a recognised role.

### 6.4.3 Incentivising health

Just as in the 1960s and 1970s the health effects of smoking were becoming more widely known, so too are the environmental determinants of poor diet and physical inactivity. Creating positive incentives for healthy living may become a policy option that is more widely embraced; already in New Zealand, Healthy Families initiatives are being developed in 10 communities with this in mind. These interventions will create community partnerships focusing on the settings where people live, learn, work and play, to prevent chronic disease (Ministry of Health 2014).<sup>12</sup>

It is conceivable that insurance companies may use premia to incentivise healthy living (or dis-incentivise unhealthy living). This does however raise legitimate concerns of who would be penalised most, and given social gradients in health, this is likely to be the most socio-economically disadvantaged population groups. In this context, the offering of sport as a low-cost opportunity to stay healthy may add to its importance in the health arena.

### 6.4.4 Looking ahead

- What is the unique story that sport can tell about itself, in the face of human technological advances?
- What partnerships does sport need to be a vital part of supporting people's health?
- What does sport need to offer to low-income groups to ensure it remains available to support health for all?

---

<sup>12</sup>[www.health.govt.nz/our-work/preventative-health-wellness/healthy-families-nz](http://www.health.govt.nz/our-work/preventative-health-wellness/healthy-families-nz)

## 6.5 THEME FIVE: THE BUILT ENVIRONMENT

### A VIEW OF 2025

City planners and sports leaders prioritise investment in infrastructure that enables dense urban populations to participate in sport as a routine part of daily life. Parks, shared school-community facilities, fitness and cycle trails, and urban sports hubs provide a range of sports opportunities that can be adapted to new sport offerings and technology. As sport in urban areas becomes an increasingly attractive option, the gap in sports participation between urban and rural areas closes markedly.

Families routinely gather at sports hubs, where children have swimming lessons and indoor sports, and adults use the gym or play in social leagues. Other council and community facilities, such as libraries, cafes, child care and meeting rooms are similarly co-located at sport hubs, connected by well-used public and active transport routes. Universal design principles, accompanied by staff competencies in working with people of different abilities, enable full participation at community sports hubs by all age groups and disabled people. People are able to link their own cloud-based analytics to online and in-person support and advice at each hub to refine their sport and fitness programmes in line with their own capacity and personal development needs.

### 6.5.1 An urban nation

The popular historical view of New Zealand being a nation of rural people breaking in the land belies its longstanding urban nature. In 2006, 86% of the population lived in urban areas, and the proportion of people living in 'main urban areas' (centres with populations of 30,000 or more) increased from 70% in 1991 to 72% in 2006 (Statistics NZ 2008a). By 2013, the Auckland region accounted for 1.4 million people, and made up half the growth of the New Zealand population (Statistics New Zealand 2013).

Looking ahead, there is likely to be a pattern of greater relative growth for Auckland, a few centres with slower growth, and population decline in much of rural New Zealand. This has implications for maintaining service levels for an ageing and possibly dwindling population (Hawke et al 2014). Furthermore, in the face of increasing urbanisation, it is notable that children and young people from urban areas are consistently *less* likely than their counterparts in rural areas to spend three or more hours in sport or recreation. Children and young people from main urban areas (i.e. areas with populations of 30,000 or more) are *less* likely than their counterparts in smaller urban and rural areas to belong to sports clubs, to take part in sports events, and to take part in sports activities organised by their school outside of class time (unpublished Sport NZ data 2014).

**“A good example of that would be Western Springs Soccer Club, growing exponentially, heaps of teams, heaps of young children playing soccer. But they don't have grounds and they get pushed off their main grounds because of the seniors.”**

As New Zealand's major cities focus on urban intensification, increased populations will place pressure on available land. For example, schools that have growing rolls will be under pressure to take over open space with school buildings; or else take a lead from housing policies and move upwards rather than outwards. Sports that have a strong and growing participation struggle to find the grounds to play in (such as rugby in South Auckland and football in central Auckland North Shore).

This pressure on school land was raised by an interviewee who spoke of the opportunity to collaborate with a private sector developer in building a new local swimming facility. Unfortunately, the local planning regulations would have led to the loss of significant land area in an already small school space; the decision was ultimately made not to proceed (see quote opposite).

These challenges are not just with schools. The role of local government in supporting sport is challenged by backlogs of maintenance, the ageing population and declining rating bases. Furthermore, as city populations change, so too are there changes in the movement of populations within cities. Transport data indicates that the rate of growth on New Zealand state highways has been static since 2004 (NZTA 2012 and 2014a), and vehicle kilometres travelled have been static since 2005 (NZTA 2014b). As baby boomers reach retirement and drive less, and younger people pass up on driving in favour of mobile device connection, we can see that people are demanding more from the environments they live and work in, and are less prepared to travel to fulfil their needs.

Internationally, cities are moving increasingly to better integrate active modes of transport into city design, so that ownership of streets is shared between people and vehicles (Gehl 2010). In New Zealand, developments such as these are in their infancy; examples include shared spaces in Elliot and Fort Streets in Auckland, the Future Streets redesign in Mangere, Model Communities initiatives in Hastings and New Plymouth, and the Christchurch Central City Recovery Plan. For the future, such developments will extend the activity options for people in central cities, not only for active living but from a sports perspective, to enable purposeful recreation choices and increase the opportunity for sports activities such as walking, running and cycling.

**“We were dead keen and the barrier was car parking. It was all good, and then they suddenly said this is what we need for the Council for car parking. And half our field was going to be taken up with car parking. And I said we just can't do that. We loved the idea, it would have been an indoor heated pool all year round. It would have been a wonderful facility for the kids.”**

**“You can see that in design of cities and how much effort is going into creating effective multi-use spaces that are much more engaging for people and entice a variety of behaviours and practices.”**

**“What the Christchurch earthquake showed us was that with a number of facilities out of action, it is now possible, using more mature business strategies, to pull together a whole sporting sector across all of Canterbury and to agree, as a group, what the right master plan for facilities is at a complete regional level.”**

## 6.5.2 Sports hubbing

Just as the design of cities is heading towards a greater emphasis on mixed uses, some interviewees in this work highlighted a shift in planning and design of sporting facilities, which are similarly moving towards a greater multi-use focus, led through regional strategic facility planning.

The need for planned development of facilities, and multi-use arrangements has been driven by a range of factors, including:

- The need for greater economies of scale from multiple sport venues
- Leveraging additional capital
- Gaining access to strategic sites
- Reducing operating costs from maintaining ageing single-use facilities
- Providing a better consumer experience for people who can not only enjoy their sports participation, but benefit from co-location of other facilities (such as cafes and libraries) on site (Visitor Solutions 2011).

Already, some schools and territorial authorities, sometimes with the support of central government funding (as occurred with the Avantidrome cycling centre in Cambridge), are working together to develop shared facilities. These have occurred at small-scale levels, such as community use of sports fields, medium-scale multi-facilities, and significant city-wide or regional facilities development (Visitor Solutions 2011).

If this concept were to gain traction, such developments would require careful planning, encompassing a design that enables multiple uses, meets the needs of populations, is well-connected to other infrastructure (such as public transport, cycling and walking facilities), and is developed at the right scale. Where, in the past, new shopping developments have been concentrated in large-scale malls and retail centres, the impact has been to shift more people into cars and away from local interaction. Planners of sports hubs should consider how their facilities can mutually reinforce, rather than undermine, active living.

A shift from outdoor to indoor facilities is occurring to support demand for indoor sports, to enable year-round participation, and to avoid conflict with other sports.

Although hubbing of sports facilities has its advantages, a key challenge is the loss of local clubs and facilities. In many cities, a range of established sports clubs, such as bowls and golf, struggle for members, financial sustainability and the ability to maintain facilities. Councils, who often are the owners of the land, facilities, or both, are increasingly becoming mediators in greater centralisation of facilities, often in the face of local opposition to change.

**“When you’re designing a facility, you’ve got to think right through to the operations that are going to be in there and the experiences you’re going to put in there and what you’re going to do to augment that. So, when you’re designing your facility now, first thing you look at is the public transport, the locations, then you look at the size and scale that people are using it at, because only 20% of the cost is the capital cost; 80% is the maintenance of the facility, so don’t overbuild it.”**



**“I think there is a bit of a shift from outdoor to indoor, especially court sports. It’s easier to run the pay for play in a facility that has consistent conditions.”**



### 6.5.3 Looking ahead

- In terms of the built environment, what does sport in New Zealand need from local government, community and private sector partners to leverage growth in sports participation?
- What are the opportunities for other community resources, such as school facilities, to play a greater role in sports participation?
- What are the opportunities for linking high performance sport with communities in facility development?

## 6.6 THEME SIX: THE STRUCTURE OF SPORT

### A VIEW OF 2025

Sports structures and leadership have undergone significant change and realignment. The silos of individual sport-focused national organisations have been replaced with new functionally aligned structures (as opposed to sport aligned) that foster participation, event development, sports marketing, high performance and sports media. Cross-sectoral alliances between sport, education and health are formalised and are driving local partnerships that lift participation, support academic achievement and help prevent chronic disease. New Zealand's sports identity is one that is grounded not only in the ongoing success on the field, but in a reputation for innovation and continuous improvement across playing, coaching, management and governance.

### 6.6.1 Sports governance and management

Sport in New Zealand will continue to evolve and be highly dynamic. The trends identified in this review are likely to have a profound collective impact on the leadership required to administer, manage and govern sporting organisations.

In the future, the number of sports on offer and ways to participate in sport will continue to increase, and the rapid technological changes will present sport managers with many challenges and opportunities (Pedersen et al 2011). In order to keep pace with the changes ahead there will be an increasing need to ensure the structures of sporting organisations are fit for purpose and the people running them have the appropriate skills. Sporting organisations or governing bodies are likely to need to explore new structural forms into the future.

Indicators of this shift can be seen today. The National Sport Inclusion Alliance in Australia offers an example of organisations joining forces to achieve greater scale and reach on an issue of mutual concern or benefit, in this case the disability sector. In an age of ongoing investment constraint, sport will also need to look to what are the partnerships and alliances, and potentially even mergers, to leverage improved participation and achievement in sport. Overlaps and duplication will need to be eradicated from the system as funders increasingly look for efficiencies and value for money. Sport will need to evolve continually to meet financial and economic pressures, and the demands from sport consumers. There may be amalgamations and rationalisation of provision with new structures, alliances and partnerships being needed (Sport NZ 2014).

**“We need to be prepared for another round of restructuring and consolidation across sports governance ... the current structures are unsustainable and not fit for purpose ”**

**“We need to explore options for shared services such as events management, branding, digital. It doesn't make sense to have 20-odd NSOs (National Sport Organisations) with events management departments.”**

The UK sport modernisation programme offers another example of how a national sport governance body has been continually developing sports governance towards greater effectiveness, efficiency and independence (Walters et al 2010).

Sport will need to adapt and change to meet the needs of diverse populations and changing consumer preferences. In part this lies in the offering sport makes to its consumers, and the alliances it can forge across other sectors to build participation and achievement. To do this, sporting organisations are likely to require different skills and leaders. The workforce and skills required to administer sport in the future are likely to be quite different from today. In the future people with skills such as branding, digital media, events management, tourism and commercial experience will be required. These people are involved in sport now but it is likely that the importance of these roles will increase into the future. This will present challenges for these organisations to identify and develop the talent needed.

Will the current structures, which are aligned to specific sports, such as hockey, football and cycling, be fit for purpose in the future? These structures are likely to continue evolving, as they have in the past, to meet the requirements and challenges of the future.

Sports organisations will also have to meet the opportunities and challenges of changing technology. This will need changes in culture, skills and business processes. The trend is for businesses to become social businesses in which employees are truly connected with each other and their customers (Chamberlin 2014).

## 6.6.2 Partnerships

The future will demand even stronger partnerships with education, health and local government. While other partnerships will be important, including the private sector, academia, philanthropy and community sectors, the partnerships at a central government level are critical for sporting organisations to have the support required to deliver to their goals and outcomes. Without very strong, formal partnerships between agencies, sporting organisations will find it increasingly difficult to support and enable sport participation across the life-course.

Outside of government structures, the relationships with industry and technology companies will assume increasing importance, particularly at the high performance end. But the community sector also offers opportunities for trialling new technology and low-cost variations of existing high-end products.

Organisations such as the UK-based Living Sport, and the National Sport Inclusion Alliance in Australia (discussed above), offer examples of sports-oriented partnerships across government agencies, sport, business, local government and health, to create more opportunities for sport.

As with any partnership there must be value on both sides. A partnership with the education sector, for example, recognises the contribution physical activity can make to supporting academic achievement. The links with the health sector should be based in part on the contribution sports participation can make to reducing obesity and chronic disease; and on the flip side, a healthy population will enable more people to be active and participate in sport.

Partnerships between clubs and sport organisations are also growing. A range of partnerships that have been formed between clubs and sport organisations have led to increased financial viability and sustainability across the partnerships (SPARC 2008c). This trend is likely to continue, but governance of these new structures is more complex than traditional structures and requires different skills.

**“My biggest concern is if we can’t get physical education and sport back into the school’s curriculum in a strong and meaningful way, we are on a slippery slope, with a generation of kids not being exposed to sport. It must be compulsory.”**

### 6.6.3 Sport and recreation workforce

The sport and recreation workforce is spread across the country in multiple organisations and in the government, NGO and private sectors. In 2010, nearly 62,000 were working in sport industries and occupations. The sport workforce is more male-dominated, relatively younger, and slightly more qualified than the total New Zealand workforce (Nana and Sanderson 2012).

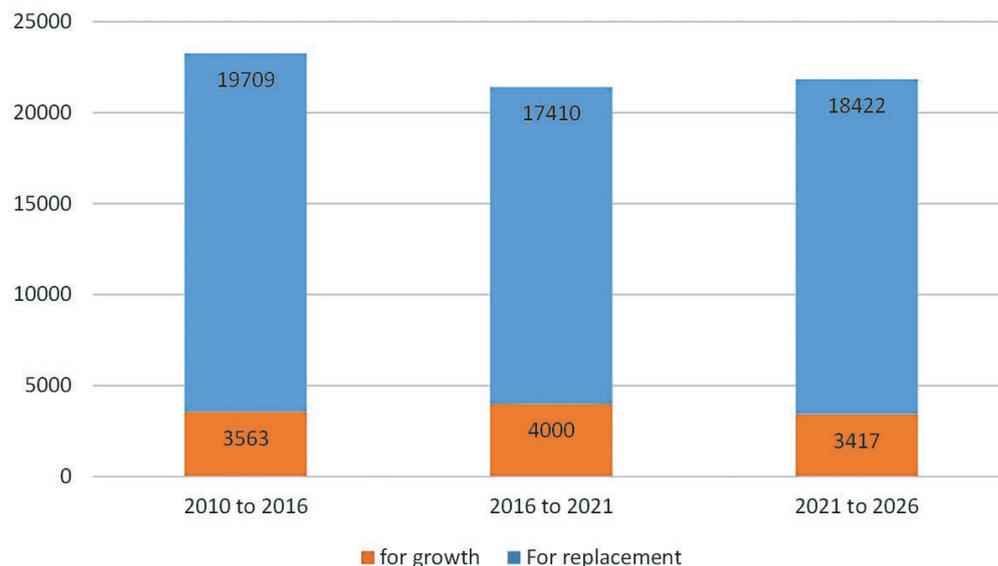
The growing presence of the sport and recreation industry means that today's young people will have more employment opportunities in the sector than ever before (Ministry for Culture and Heritage 2011).

Projections undertaken by BERL indicate the sector workforce will need to grow by up to 10,000 people in the 15 years from 2011 to 2026. In addition, an estimated 55,000 paid staff will retire or leave the sector, needing to be replaced, during this period (Nana and Sanderson 2013). A range of influences and challenges have been proposed that will influence how the workforce will continue to provide opportunities for sport into the future.

**These are:**

- Roles and functions of volunteers in the sport sector's activities
- Competition for workforce from other sectors and from other countries (this in particular is a key challenge)
- Clarifying and promoting workforce career paths within the sector
- Structures within, and organisation of, the sector
- Relationships between the sector and associated operators (such as tourism providers, as well as potential investment and service provider partners) (Nana and Sanderson 2013).

#### Sport and Recreation sector additional workforce requirements



Source: Nana and Sanderson 2013

### 6.6.4 Looking ahead

- Do sporting organisations have the right skills to embrace the new experience-driven sport environment? What should be their response?
- What is the role of Sport NZ in supporting NSOs in the future? Will Sport NZ need to have different relationships with different organisations?
- Do we need alternative or merged structures that span multiple sports and deliver improved channels to participation, sports events and commercial sports development?
- It is likely that strong partnerships with education, health and local government will be increasingly important to ensure sport continues to be at the table. What types of relationships are required and how can Sport NZ continue to develop these?
- What new areas of value can the workforce contribute in the decade ahead?
- What is needed to ensure the value of sport grows into the future?

## 7. CONCLUSIONS

In this review, we have traversed where we have come from, where we are at now, and where we could be heading in New Zealand's sports future. With any view of the future, there are always uncertainties, as well as many shifts and developments that will occur not as alternatives, but in parallel.

For sport to continue as a vital part of New Zealand's culture, society and economy, these reflections indicate that sport will need to:

- Nurture and grow its relevance in people's lives and in their identity with sport
- Understand the choices in the daily lives that sport competes with, and ensure a viable offering is maintained
- Ensure a supportive relationship between elite and community participation
- Forge alliances across sectors
- Link with technological innovation to enhance the experience of sport, whether as a participant or spectator
- Provide attractive work and career pathways
- Understand and respond to the challenges and barriers some cultures and communities have in participating
- Tap into both new and traditional forms of association
- Be open to adaptation and change in the face of economic, social, cultural and technological change.

## 8. APPENDIX 1: METHOD

### This research is based on the following components:

- Analysis of Sport NZ and Statistics NZ datasets
- Interviews with 14 people with a range of expertise in sport, education, economics, local government, technology, societal change and digital media. These interviews were conducted during May and June 2014
- A rapid review of published and grey literature, including sport and fitness industry reports, government reports, academic papers, blogs and journalism
- In-depth review of The Future of Australian Sport: Megatrends shaping the sports sector over coming decades. A Consultancy Report for the Australian Sports Commission. CSIRO, Australia
- A review workshop involving five senior Sport NZ staff held in May 2014.

Population data was primarily sourced from the 2013 New Zealand Census, together with survey data from Active NZ (2007/08), New Zealand Health Survey (2006/07 and 2013/14), Active NZ 2013/14 and New Zealand Time Use Survey (2009/10).

Sources used in this review were obtained via selective searching to address the project objectives. Google and Scopus were the search engines used to search for literature. Grey literature such as journalism and blogs were included alongside published academic reports as they offer useful perspectives on future possibilities, and often are more immediate than the academic literature. In addition, the Australian Clearinghouse for Sport database and the Sport New Zealand Knowledge Library were accessed for further resources.

The key overarching trends highlighted in this report were identified through review and synthesis of both the literature and interviews. The trends were tested in the research team and with Sport NZ reviewers, then refined further to provide six overarching – and to some degree overlapping – themes that will shape sports participation and endeavour.

Interviewees were selected by Sport NZ staff, with some additional interviewees suggested by the research principals. A copy of the interview guide is located in Appendix 2.

A review workshop with Sport NZ staff provided an opportunity for the research team to present on emerging findings and overarching trends, and discuss the structure and key areas of content for the research.

## 9. APPENDIX 2: INTERVIEW TOPICS

Detailed below are the interview questions that guided interviews. The questions below functioned as a semi-structured interview guide and were therefore a starting point for discussion. The interviews traversed a variety of topics and often extended beyond the core questions listed.

Firstly, thinking forward to 2020:

- How will New Zealand be different (if at all) from now? Compare and contrast 2014 with 2020.
- Are there trends (social, demographic, economic, environmental) happening now that point the way to 2020?
- Thinking about sport, how will things be different (if at all) from now? Compare and contrast 2014 with 2020.
- What will be the biggest issues/pressures facing sport in 2020?
  - Will the sports be different in 2020?
  - Will the sports be played by different people?
  - Will differences in technology, environment, laws, or products change things? (e.g. google glass, virtual reality, urban planning, lifecycle design)
  - Will sports be located/played in different places/facilities? (e.g. shift from outdoor to indoor)
  - Will the business of sport be different? (e.g. tourism, body enhancement)
  - Will New Zealand's place in the sporting world be different?
- Are there 3 things that will be happening that aren't happening now?
- In terms of the changes you're thinking about, will there be any groups of people that might benefit more than others? Less than others?

What are the major changes that you've seen in sport in the last 10 years – do these offer any perspective on what you think might happen by 2020?

Based on 2020 future discussed above:

- What would you identify as being possible?
- What is similar to now, what will be very new?
- Will any products and services not available today be available in the future?
- What 3 things to Sport NZ would they recommend to change what they are doing/follow a new direction for the future? What would you recommend?

2030 – Interviewers then applied the same questions as above but thinking forward to 2030.

## 10. REFERENCES

- Anderson C. 2004. The long tail. *Wired*. Internet: <http://archive.wired.com/wired/archive/12.10/tail.html> Accessed 24 May 2014.
- Brown C. 2012. *Technology to Use in Your Coaching*. Leeds: Sports Coach UK. Internet: <http://www.sportscoachuk.org/resource/technology-use-your-coaching>. Accessed: 22 July 2014.
- Burg N. 2014. What is the future of streaming for major sporting events? *Adweek*. 31 January 2014. <http://www.adweek.com/brandshare/should-marketers-care-who-live-streaming-big-game-155289>. Accessed 24 May 2014.
- Callister P, Dixon S. 2001. *New Zealanders' Working Time and Home Work Patterns: Evidence from the Time Use Survey*. New Zealand Department of Labour, Wellington.
- Cameron M. 2013. Personal clouds and future customer relationships (blog). Internet: <http://www.markcameron.com/article/personal-clouds-and-future-customer-relationships/>. Accessed 24 May 2014.
- Chamberlin B. 2014. Information technology trends to watch in 2014. A Horizon/Watching community trend summary report. Internet: <http://www.slideshare.net/fullscreen/HorizonWatching/horizon-watching-2014-tech-trends-to-watch-summary-14jan2014/1>. Accessed 14 August 2014.
- Christie B. 2013. Future of medicine: Advances in regenerative medicine teach body how to rebuild damaged muscles, tissues and organs. *Scientific American*. 308 (4).
- Computers and the Internet. Internet: <http://futuretimeline.net/subject/computers-internet.htm>. Accessed 14 August 2014.
- Dalziel P. 2011. *The Economic Value of Recreation and Sport to New Zealand*. Christchurch: AERU, Lincoln University.
- Education Review Office. 2007. *The Quality of Teaching in Years 4 and 8: Health and PE, ERO, 2007. Survey of 151 schools (non-representative)*.
- Finskud L. 2004. *Competing for Choice: Developing winning brand strategies*. Cyan Communications.
- Fisher E. 2011. 20 great uses of social media in sports. *Sports Business Daily*. Internet: <http://www.sportsbusinessdaily.com/Journal/Issues/2011/08/01/In-Depth/Social-media.aspx>. Accessed 24 May 2014.
- Gammell A. 2014. As sport formats get shorter, the list of competitors get taller (blog). Internet: <http://www.earnest-agency.com/entertainment/ideas-and-insight/earnest-blog/As-sport-formats-get-shorter-the-list-of-competitors-get-taller/>. Accessed 24 May 2014.
- Gandhi A, Magar C, Roberts R. 2014. How technology can drive the next wave of mass customization. McKinsey & Company. Internet: [http://www.mckinsey.com/insights/business\\_technology/how\\_technology\\_can\\_drive\\_the\\_next\\_wave\\_of\\_mass\\_customization](http://www.mckinsey.com/insights/business_technology/how_technology_can_drive_the_next_wave_of_mass_customization). Accessed 16 June 2014.
- Gehl J. 2010. *Cities for People*. Washington: Island Press.
- Green K. 2010. *Key Themes in Youth Sport*. Abingdon, UK and New York: Routledge.
- Hajkowicz SA, Cook H, Wilhelmseder L, Boughen N. 2013. The Future of Australian Sport: Megatrends shaping the sports sector over coming decades. A Consultancy Report for the Australian Sports Commission. CSIRO, Australia.
- Hancock L. 2008. Facing the future. *The Daily Telegraph*. 13 January. Internet: <http://fashion.telegraph.co.uk/news-features/TMG3364009/Facing-the-future.html>. Accessed 25 May 2014.
- Hanna RK, Subic A. 2008. Towards sustainable design in the sports and leisure industry. *International Journal of Sustainable Design*. 1:60-74.
- Hansen BL, Hinsby PM, Schmidt C, Ditlevsen CL, Mogensen K, Høgholm F. 2006. *Between Individualisation and Community*. Copenhagen: Copenhagen Institute for Futures Studies.
- Hawke G, Bedford R, Kukutai T, McKinnon M, Olssen E, Spoonley P. 2014. *Our Futures: Te Pae Tawhiti: The 2013 census and New Zealand's changing population*. Wellington: Royal Society of New Zealand.

- Hills B. 2012. Busy lifestyles keep Kiwis from breakfast. *The New Zealand Herald*. 18 September 2012. Retrieved from [http://www.nzherald.co.nz/lifestyle/news/article.cfm?c\\_id=6&objectid=10834771](http://www.nzherald.co.nz/lifestyle/news/article.cfm?c_id=6&objectid=10834771)
- Jackson N. 2014. Thinking recreation – thinking demographic trends. Presentation to Thinking Recreation Conference 2014, Hamilton. National Institute of Demographic and Economic Analysis (NIDEA).
- Koppell KJ, Mann JI, Williams SM, Jo E, Drury PL, Miller J, Parnell WR. 2013. Prevalence of diagnosed and undiagnosed diabetes and prediabetes in New Zealand: Findings from the 2008/09 Adult Nutrition Survey. *New Zealand Medical Journal*. 126 (1370).
- Maartens P. 2002. Health transitions in a globalising world: Towards more disease or sustained health? *Futures*. 34:635-48.
- Madigan T, Delaney T. 2009. *Sports: Why people love them!* Lanham, Maryland, USA: University Press of America.
- Martin AJ, Eagleman AN, Pancoska P. 2014. A case study of regional sport organization development in triathlon. *Journal of Applied Sport Management*. 6 (1).
- McClellan P. 2013. Top five sports technology/digital media trends to watch for in 2014 (blog). Internet: <http://www.sporttechie.com/2013/12/19/top-5-sports-technologydigital-media-trends-to-watch-for-in-2014/>. Accessed 25 May 2014.
- McCracken H. 2014. Free WiFi at Auckland train stations. *The New Zealand Herald*. Internet: [http://www.nzherald.co.nz/nz/news/article.cfm?c\\_id=1&objectid=11262134](http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11262134). Accessed:16 June 2014.
- Maddison R, Phaeffli Dale L, Marsh S, LeBlanc A, Oliver M. 2014. The New Zealand Physical Activity Report Card for Children and Youth. Auckland: National Institute for Health Innovation, University of Auckland.
- Millar M. 2010. Extreme sports surfing to success. BBC News 23 May 2010. Internet: <http://www.bbc.co.uk/news/10130842>. Accessed:18 July 2014.
- Ministry of Education. 2013. *International student enrolments in New Zealand 2006 – 2012*. Internet: [http://www.educationcounts.govt.nz/\\_\\_data/assets/pdf\\_file/0012/115050/Enrolments-of-international-students-2006-2012.pdf](http://www.educationcounts.govt.nz/__data/assets/pdf_file/0012/115050/Enrolments-of-international-students-2006-2012.pdf). Accessed:16 June 2014.
- Ministry of Health. 2012. *The Health of New Zealand Children 2011/12: Key findings of the New Zealand Health Survey*. Wellington: Ministry of Health.
- Ministry of Health. 2013a. *New Zealand Health Survey: Annual update of key findings 2012/13*. Wellington: Ministry of Health.
- Ministry of Health. 2013b. *Annual Report for the year ended 30 June 2013, including the Director-General of Health's Annual Report on the State of Public Health*. Wellington: Ministry of Health.
- Ministry of Health. 2014a. *Healthy Families NZ*. Wellington: Ministry of Health. Internet: <http://www.health.govt.nz/our-work/preventative-health-wellness/healthy-families-nz>. Accessed 19 July 2014.
- Ministry of Health. 2014b. *Annual Update of Key Results 2013/14: New Zealand Health Survey*. Wellington: Ministry of Health.
- Ministry of Social Development. 2012. *Household Incomes in New Zealand: Trends in indicators of inequality and hardship 1982 to 2012*. Wellington: Ministry of Social Development.
- Ministry of Social Development. 2014. *Household Incomes in New Zealand: Trends in indicators of inequality and hardship 1982 to 2013*. Wellington: Ministry of Social Development.
- Nana G, Sanderson K (BERL). 2012. *New Zealand Sport and Recreation Sector Workforce Estimates: Situation Analysis*. Wellington: BERL.
- Nana G, Sanderson K (BERL). 2013. *Sport and Recreation Sector Workforce to 2026*. Wellington: BERL.
- National Sport Inclusion Alliance (NSIA) Australia – media announcement. Internet: <http://nsia.org.au/media-release/softball-australia-swimming-australia-and-bowls-australia-join-the-nsia>. Accessed:21 July 2014.
- New Zealand Productivity Commission. 2014. *An International Perspective on the New Zealand Productivity Paradox*. Wellington: New Zealand Productivity Commission.
- New Zealand Secondary Schools Sports Council. 2013. School sport – by the numbers (media release). Internet: <http://www.sportsground.co.nz/article.asp?siteid=19259&articleid=34877>. Accessed 21 July 2014.
- New Zealand Transport Agency. 2012. *Traffic Volumes Monthly Report* (February 2012). Wellington: NZTA.

- New Zealand Transport Agency. 2014a. *Traffic Volumes Monthly Report* (May 2014). Wellington: NZTA.
- New Zealand Transport Agency. 2014b. *Transport volumes: Vehicle travel*. Internet: <http://www.transport.govt.nz/ourwork/tmif/transport-volume/tv001/>. Accessed 17 June 2014.
- Norton K, Olds T. 2001. Morphological evolution of athletes over the 20th century: Causes and consequences. *Sports Medicine*. 31 (11):763-783.
- OECD (2014) *Obesity Update*.
- Odom J. 2009. From kickball to pingpong, sport and social clubs gain popularity in Portland and beyond. *The Oregonian*. 10 August. Internet: [http://www.oregonlive.com/news/index.ssf/2009/08/from\\_kickball\\_to\\_pingpong\\_spor.html](http://www.oregonlive.com/news/index.ssf/2009/08/from_kickball_to_pingpong_spor.html). Accessed 24 May 2014.
- Oram R. 2014. The productivity paradox. Presentation to the KPI Benchmarking Forum for Adult Mental Health and Addiction Services. Wellington.
- Pedersen PM, Parks J, Quarterman J, Thibault L (eds). 2011. *Contemporary Sport Management* (Fourth Edition). Champaign, Illinois: Human Kinetics.
- Putnam R. 2001. *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon and Schuster.
- Research New Zealand. 2014. *A Report on a Survey of New Zealanders' Use of Mobile Electronic Devices 2014*. Wellington: Research New Zealand.
- Spoonley P, Taiapa C. 2009. Sport and cultural diversity: Responding to the sports and leisure needs of immigrants and ethnic minorities in Auckland. A report for Auckland Regional Physical Activity and Sport Strategy (ARPASS). Auckland: Massey University.
- Sport England. 2008. *Building Communities: Developing strong, sustainable and cohesive communities through sport*. London: Sport England.
- Sport and Recreation New Zealand. 2008a. *Sport, Recreation and Physical Activity Participation Among New Zealand Adults: Key Results of the 2007/08 Active NZ Survey*. Wellington: SPARC.
- Sport and Recreation New Zealand. 2008b. *Volunteers: The heart of sport. The experiences and motivations of sports volunteers*. Wellington: SPARC.
- Sport and Recreation New Zealand. 2008c. *Sport Partnership Project. A review of eight high profile sport club partnerships*. Wellington: SPARC.
- Sport and Recreation New Zealand. 2009a. *Powering Participation. Successful initiatives to boost sports participation and club membership*. Wellington: SPARC.
- Sport and Recreation New Zealand. 2009b. *How to set up a Sportsville – The Hutt City Approach*. Wellington. SPARC.
- Sport New Zealand. 2011. *Briefing to the Incoming Minister for Sport and Recreation: December 2011*. Wellington: Sport New Zealand.
- Sport New Zealand, 2012. *Sport and Recreation in the Lives of Young New Zealanders*. Wellington: Sport New Zealand.
- Sport New Zealand. 2013. *Sport and Recreation Participation Trends (1997 to 2007)*. Wellington: Sport New Zealand.
- Sport New Zealand. 2014. PESTLE analysis for the sport and recreation community development report (DRAFT). Wellington: Sport New Zealand.
- Sport New Zealand. 2015. *Sport and Recreation in the Lives of New Zealand Adults. 2013/14 Active New Zealand Survey Results*. Wellington: Sport New Zealand.
- Sport technology gives Holland a competitive edge. Internet: <http://www.hollandtrade.com/media/features/feature-stories/?bstnum=4914>. Accessed 22 August 2014.
- Sport Wellington and Visitor Solutions Ltd. AMI Round the Bays. *Kio Bay 'Community Fun Zone'. A 'Value of Sport' case study*. 2013. Wellington. Sport Wellington.
- Statistics New Zealand. 2006. *2006 New Zealand Census of Population and Dwellings*. Wellington: Statistics New Zealand.
- Statistics New Zealand. 2006. *New Zealand: An Urban/Rural Profile Update*. Wellington: Statistics New Zealand.
- Statistics New Zealand. 2008a. *Urban and Rural Migration*. Wellington: Statistics New Zealand.
- Statistics New Zealand. 2008b. Auckland fastest-growing region since last census, and South Island districts grow most (media release). Wellington: Statistics New Zealand.

- Statistics New Zealand. 2011. *Time Use Survey: 2009/10*. Wellington: Statistics New Zealand.
- Statistics New Zealand. 2012. *Subnational Population Projections: 2006(base)–2031 (October 2012 update)*. Wellington: Statistics New Zealand.
- Statistics New Zealand. 2013. *2013 New Zealand Census of Population and Dwellings*. Wellington: Statistics New Zealand.
- Subic A, Mouritz A, Troynikov O. 2014. Sustainable design of sports products. In: Fuss F, Subic A, Strangwood M, Mehta R (eds). *Routledge Handbook of Sports Technology and Engineering*. Abingdon: Routledge.
- Summers N. 2013. The future of health apps: Personalized advice combining your diet, sleep pattern and fitness regime (blog). Internet: <http://thenextweb.com/apps/2013/08/07/the-future-of-health-apps-smart-recommendations-for-your-diet-sleep-pattern-and-fitness-regime/>. Accessed 25 May 2014.
- Tourism New Zealand. 2013. Adventure tourism – research report. [http://www.tourismnewzealand.com/media/1030987/adventure\\_tourism\\_-\\_research\\_report.pdf](http://www.tourismnewzealand.com/media/1030987/adventure_tourism_-_research_report.pdf). Accessed:16 June 2014.
- Tourism New Zealand. 2014a. New focus for golf tourism to boost New Zealand’s slice of lucrative market. Internet: <http://www.tourismnewzealand.com/tourism-news-and-insights/latest-tourism-news/2013/11/new-focus-for-golf-tourism/> Accessed 16 June 2014.
- Tourism New Zealand. 2014b. Major sports events. (web page). Internet: <http://www.tourismnewzealand.com/sector-marketing/major-sports-events/>. Accessed 16 June 2014.
- University of Auckland. *Key Statistics*. Internet: <https://www.auckland.ac.nz/en/about/the-university/new-zealands-leading-university/key-statistics.html> Accessed: 17 June 2014
- Visitor Solutions. 2011. *Territorial Authority/School Partnerships: A guide*. Auckland: Visitor Solutions.
- Voros J. 2001. A primer on futures studies, foresight and the use of scenarios. *Foresight Bulletin*, No 6. Swinburne University of Technology. <http://thinkingfutures.net/what-we-do/resources/futures-foresight/a-foresight-primer/foresight-primer/>
- Wade A. 2013. Time-saving gadgets keeping us busy. *The New Zealand Herald*. 1 May. Retrieved from: [http://www.nzherald.co.nz/lifestyle/news/article.cfm?c\\_id=6&objectid=10880786](http://www.nzherald.co.nz/lifestyle/news/article.cfm?c_id=6&objectid=10880786)
- Walters G, Trenberth L, Tacon R. 2010. *Good Governance in Sport: A survey of UK national governing bodies of sport*. London: Birkbeck Sport Business Centre.
- Wharton School. 2013. *The Green Sports Movement*. University of Pennsylvania: Wharton School.
- Winslow R. 2012. The future of medicine is now. *Wall Street Journal*. Internet: <http://online.wsj.com/news/articles/SB10001424127887323530404578205692226506324>. Accessed 18 June 2014.
- Witten K, Abrahamse W, Stuart K (eds). 2011. *Growth Misconduct? Avoiding sprawl and improving urban intensification in New Zealand*. Wellington: New Zealand Centre for Sustainable Cities.

